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Flying Operations

***RC/OC/WC/TC-135--OPERATIONS
PROCEDURES***

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This volume implements AFPD 11-2, *Aircraft Rules and Procedures*; AFPD 11-4, *Aviation Service*; and AFI 11-202V3, *General Flight Rules*. It establishes the minimum Air Force standards for operations while performing duties in the RC/OC/WC/TC-135. It applies to all RC/OC/WC/TC-135 units. It does not apply to Air National Guard or Air Force Reserve Command units. MAJCOMs/DRUs/FOAs are to forward proposed MAJCOM/FOA/DRU-level supplements to this volume to HQ AFSSA/XOF, through HQ ACC/DISI, for approval prior to publication IAW AFPD 11-2. Copies of MAJCOM/DRU/FOA-level supplements, after approved and published, will be provided by the issuing MAJCOM/DRU/FOA to HQ AFSSA/XOF, HQ ACC/DISI, and the user MAJCOM/DRU/FOA and NGB offices of primary responsibility. Field units below MAJCOM/DRU/FOA level will forward copies of their supplements to this publication to their parent MAJCOM/DRU/FOA office of primary responsibility for post publication review. **NOTE:** The terms Direct Reporting Unit (DRU) and Field Operating Agency (FOA) as used in this paragraph refer only to those units that report directly to HQ USAF. Keep supplements current by complying with AFI 33-360V1, *Publications Management Program*. See paragraph **1.3** of this volume for procedures on how and where to submit recommended changes to this publication.

This volume requires the collection or maintenance of information protected by the Privacy Act of 1974. The authority to collect and maintain the records prescribed in this volume are Title 37 U.S.C. 301a, *Incentive Pay*; Public Law 92-204 (*Appropriations Act for 1973*), Section 715; Public Law 93-570 (*Appropriations Act for 1974*); Public Law 93-294 (*Aviation Career Incentive Act of 1974*); DOD Directive 7730.57, *Aviation Career Incentive Act of 1974 and Required Annual Report*; AFI 11-401, *Flight Management*; and E.O. 9497. System of records notice F011 AF XO A, *Air Force Operations Resource Management System (AFORMS)*, applies.

SUMMARY OF REVISIONS

This revision incorporates interim change (IC) 2000-1 and deletes training requirements listed in **Chapter 4** and **Chapter 9**. These training requirements were updated and moved to AFI 11-2RC-135 Volume 1,

RC/OC/WC/TC-135--Aircrew Training. IC 2000-1 eliminates the requirement for OC-135 crews to wear helmets during low-altitude (LA) flight operations. See the last attachment of this publication for the complete IC. A “|” indicates revised material since the last edition.

Chapter 1—GENERAL INFORMATION	7
1.1. General:	7
1.2. Deviations and Waivers.	7
1.3. Revisions.	7
1.4. Key Words and Definitions.	7
Chapter 2—COMMAND AND CONTROL (C2)	9
2.1. Commander Authority:	9
2.2. Single Integrated Operations Plan (SIOP).	9
2.3. Execution Authority.	9
2.4. Aircraft Commander Responsibility and Authority.	9
2.5. Mission Clearance Decision.	9
2.6. Aircrew Responsibilities.	10
2.7. Operational C2 Reporting.	10
2.8. Command, Control, and Communications (C3) Agencies:	12
Table 2.1. C3 Agencies (DSN, SOCS, Secure, Commercial).	12
Table 2.2. C3 Agencies (DSN, Commercial, Toll Free).	13
Table 2.3. C3 Agencies (DSN, Secure Drop, Commercial).	14
Chapter 3—CREW COMPLEMENT AND MANAGEMENT	15
3.1. Aircrew Qualification.	15
3.2. Crew Complement.	15
3.3. Mission-Essential Ground Personnel (MEGP):	15
3.4. Crew Rest:	15
3.5. Orientation and Incentive Flights:	15
Chapter 4—OPERATING GUIDELINES	17
4.1. Objectives.	17
4.2. Policy.	17
4.3. Operating Restrictions.	17
4.4. Three-Engine Ferry Operations.	17

4.5. Flight Maneuvers.	17
Table 4.1. Maneuvers Authorized for Qualification and Continuation Training.	18
4.6. Touch-and-Go Landing Limitations:	19
4.7. Operating Limitations.	19
4.8. Airborne Radar Directed Approach (ARDA).	19
4.9. Performance Requirements.	19
4.10. Landing Limitations.	20
4.11. Prohibited In-flight Maneuvers.	20
4.12. Low Altitude Operations (OC-135).	20

Chapter 5—OPERATIONAL PROCEDURES 23

5.1. Checklists:	23
5.2. Duty Station.	23
5.3. Flight Station Entry.	23
5.4. Takeoff and Landing Policy.	23
5.5. Outside Observer.	23
5.6. Seat Belts:	23
5.7. Communications Policy:	24
5.8. Runway, Taxiway, and Airfield Requirements.	24
5.9. Aircraft Taxi Obstruction Clearance Criteria:	25
5.10. Fuel Reserves and Alternate Airport Requirements.	25
5.11. Fuel Jettisoning Procedures.	26
5.12. Autopilot Failure.	26

Chapter 6—AIRCREW PROCEDURES 27

Section 6A Pre-Mission	27
6.1. Aircrew Uniform:	27
6.2. Personal Requirements:	27
6.3. Pre-Mission Actions:	27
6.4. Aircrew Publications Requirements.	28
Table 6.1. Aircrew Publications Requirements.	28
Section 6B Pre-departure	28
6.5. Airfield Certification.	28

6.6. Aircrew Intelligence Briefing.	28
6.7. Flight Crew Information File (FCIF) Procedures:	29
6.8. Airfield Security.	29
6.9. Briefing Requirements:	29
6.10. Call Signs:	29
6.11. Flight Plan Verification:	30
6.12. Departure Planning:	30
6.13. Obstacle Clearance Planning:	30
6.14. Alternate Planning:	31
6.15. Adverse Weather:	31
Section 6C Pre-Flight	31
6.16. AFTO Form 781, AFORMS--Aircrew/Mission Flight Data Document.	31
6.17. Aircraft Servicing and Ground Operations.	32
6.18. Aircraft Recovery Away From Main Operating Base (MOB).	32
6.19. Oxygen Requirements.	32
6.20. Cargo Documentation.	32
6.21. Procedures for Airlifting Hazardous Cargo.	32
Section 6D Departure	33
6.22. On-Time Takeoffs.	33
Section 6E En route	33
6.23. Flight Progress:	33
6.24. NAVAID Capability:	33
6.25. In-flight Meals.	34
6.26. Communications:	34
6.27. In-flight Emergency Procedures.	34
6.28. Need for Medical Assistance.	34
6.29. Weather Forecasts:	34
Section 6F Arrival	35
6.30. Descent.	35
6.31. Classified Equipment and Material:	35
6.32. Unscheduled Landings.	36

6.33. Maintenance.	36
6.34. Border Clearance.	36
6.35. Insect and Pest Control:	36
6.36. Arresting Cables:	37
Chapter 7—RC/OC/WC/TC--AIRCRAFT SECURITY	38
7.1. General.	38
7.2. Security.	38
7.3. Air Force Physical Security Program.	38
7.4. Enroute Security.	39
7.5. Detecting Unauthorized Entry.	40
Chapter 8—OPERATIONAL REPORTS AND FORMS	41
8.1. AF Form 457, USAF Hazard Report.	41
8.2. AF Form 651, Hazardous Air Traffic Report (HATR)	41
8.3. Reports of Violations.	41
8.4. Petroleum, Oil, and Lubricants (POL)--Aviation Fuels Documentation.	42
Chapter 9—RC/OC/WC/TC-135 OPERATIONS-NAVIGATION PROCEDURES	45
9.1. General:	45
9.2. Mission Planning:	45
9.3. Navigation Procedures:	46
Figure 9.1. Navigation Log and Chart Symbolology.	48
9.4. Minimum Navigation Performance Specification (MNPS) Operations.	48
Chapter 10—AIR REFUELING (AR)	49
10.1. AR Limitations:	49
10.2. Tanker Autopilot.	49
10.3. AR without Tanker Disconnect Capability.	49
10.4. Manual/Emergency Boom Latching.	49
10.5. Prohibited Refueling Maneuvers.	49
10.6. Practice Emergency Separation:	49
10.7. Limits Demonstrations.	50
10.8. Receiver Copilot AR:	50
10.9. Tanker Aircraft Commander Responsibilities:	50

10.10.Receiver Aircraft Commander Responsibilities:	51
10.11.ATC Clearance.	51
10.12.Communications Failure.	51
10.13.MARSA Applicability for AR.	52
10.14.High Latitude Rendezvous and AR Procedures.	52
Chapter 11—MISSION PLANNING	53
11.1. Scope.	53
11.2. Procedures:	53
11.3. Mission Preparation:	54
11.4. Aircrew Mission Briefing:	54
11.5. Pre-Takeoff Meeting.	54
11.6. Post-flight Debriefing and Critique:	55
Attachment 1—GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION	56
Attachment 2—IC 2000-1 TO AFI 11-2RC-135, VOLUME 3, RC/OC/WC/TC-135— OPERATIONS PROCEDURES	62

Chapter 1

GENERAL INFORMATION

1.1. General:

1.1.1. This AFI provides guidelines for RC/OC/WC/TC-135 operations and applies to RC/OC/WC/TC-135 aircrews and all management levels concerned with operation of the RC/OC/WC/TC-135. It is both a compilation of information from aircraft flight manuals, flight information publications (FLIP), and Air Force directives, as well as an original source document for many areas. Basic source directives have precedence in the case of any conflicts, revisions, and matters of interpretation.

1.1.2. ACC ISR Systems Operations Division (HQ ACC/DIS) has overall responsibility for administration of this AFI.

1.1.3. Copies will be current and available to planning staffs from headquarters to aircrew level. Transportation and base operations passenger manifesting agencies will also maintain a copy of this AFI.

1.2. Deviations and Waivers. Do not deviate from the policies and guidance in this AFI under normal circumstances, except:

1.2.1. For safety.

1.2.2. When beyond C2 communications capability and it is necessary to protect the crew or aircraft from a situation not covered by this AFI, the aircraft commander has ultimate authority and responsibility for the course of action to be taken. Report all deviations or exceptions without waiver through channels to MAJCOM OPR and OCR.

1.2.3. When a controlling source publication changes, that publication takes precedence until the change is incorporated herein. After a change is made to a controlling source, a change to this AFI will be distributed in a timely manner.

1.2.4. Waiver authority is the parent MAJCOM/DO unless otherwise directed in this AFI. Waivers required for exercises and operational missions involving aircraft from more than one unit or command should be coordinated with other participants to ensure standardization. In all cases, waiver approval and coordination should be published in the operations order (OPORD) or operations plan (OPLAN).

1.3. Revisions. Users of this AFI are encouraged to submit proposed changes through appropriate channels to HQ ACC/DISI according to AFI 11-215, *Flight Manuals Program (FMP)*. Use AF Form 847, **Recommendation for Change of Publication**.

1.4. Key Words and Definitions. See [Attachment 1](#) of this volume for additional terms.

1.4.1. "Will" and "shall" indicate a mandatory requirement.

1.4.2. "Should" is normally used to indicate a preferred, but not mandatory, method of accomplishment.

1.4.3. "May" indicates an acceptable or suggested means of accomplishment.

1.4.4. "Note" indicates operating procedures, techniques, etc., that are considered essential to emphasize.

Chapter 2

COMMAND AND CONTROL (C2)

2.1. Commander Authority:

2.1.1. Combatant Command (COCOM). Commander-in-chief U.S. Atlantic Command (CINCUSACOM) will exercise COCOM over all RC/OC/WC/TC-135 forces at all times. COMACC will exercise OPCON over assigned forces while in CONUS.

2.1.2. Operational Control (OPCON). The authority delegated to a commander to direct forces assigned so the commander may accomplish specific missions or tasks. These missions/tasks are usually limited by function, time/location to deploy units concerned, and to retain or assign tactical control of those units. It does not include authority to assign separate employment of components of the units concerned, nor does it, of itself, include administrative or logistic control. Theater commanders-in-chief (CINC) will exercise OPCON over forces while chopped to their AOR. The CINC may further delegate OPCON authority down their chain-of-command.

2.1.3. Administrative Control (ADCON). *Theater-assigned and attached RC/OC/WC/TC-135 forces*: Theater Air Force Component Commanders (AFCC) will maintain administrative control over those forces that are theater-assigned. COMACC will maintain administrative control over those forces that are theater-attached.

2.2. Single Integrated Operations Plan (SIOP). USCINSTRAT will exercise OPCON of reconnaissance forces generated in support of the SIOP through the Commander, Task Force Battle Management (CTF-BM).

2.3. Execution Authority. Execution approval will be received through the local command post or command element. The OG/CC will be the approval authority for local training missions. The aircraft commander in coordination with C2 authorities will execute missions operating outside the normal communications channels.

2.4. Aircraft Commander Responsibility and Authority. An aircraft commander is designated for all flights on the flight authorizations. Aircraft commanders are:

2.4.1. In command of all persons aboard the aircraft.

2.4.2. Responsible for the welfare of the crew and the safe accomplishment of the mission.

2.4.3. Vested with the authority necessary to manage crew resources and accomplish the mission.

2.4.4. Final mission authority and will make decisions not specifically assigned to higher authority.

2.4.5. Final authority for requesting or accepting any waivers affecting the crew or mission.

2.4.6. Charged with keeping the applicable C2 or executing agencies informed concerning mission progress.

2.5. Mission Clearance Decision. Final decision to delay a mission may be made by either the executing agency, C2 element, squadron CC, or the aircraft commander when conditions are not sound to start or continue a mission. Final responsibility for safe conduct of the mission rests with the aircraft commander.

If the aircraft commander refuses a mission for safety reasons, the mission will not depart until the conditions have been corrected or improved so that the mission can operate safely. Another aircraft commander and aircrew will not be alerted to take the same mission under the same conditions.

2.5.1. Rerouting or diverting a mission will be authorized by the execution authority except in an emergency or when required by en route or terminal weather conditions.

2.5.1.1. The controlling agency directing the rerouting or diversion is responsible for ensuring the aircraft is compatible with departure, en route, and destination requirement and facilities. The controlling agency should review weather, NOTAM information, airfield status, security arrangements, billeting, and maintenance support prior to determining a diversion or alternate location.

2.5.1.2. The aircraft commander will notify the appropriate command center of any aircraft or aircrew limitation that may preclude diversion or rerouting the mission.

2.5.2. The aircraft commander will obtain existing and forecast weather for the alternate from any available source when directing an aircraft to an alternate airfield. The aircraft commander should obtain information concerning NOTAMs, airfield status, security, billeting, and maintenance support prior to selecting an alternate. If the planned alternate becomes unsuitable while en route, the aircraft commander will coordinate with applicable command and control agencies for other suitable alternates. The aircraft commander is final authority on selecting a suitable alternate.

2.5.3. The C2 agency will ensure the aircraft commander is provided existing and forecast weather for the alternate when directing an aircraft to an alternate airfield. In addition, the C2 agency will obtain NOTAM information, airfield status, security, billeting, and maintenance support status at primary and secondary alternate locations and provide this information to the aircraft commander. If the planned alternate is unsuitable upon arrival at destination, the agency will advise the aircraft of other suitable alternates. The C2 agency will coordinate with customs and ground service agencies to prepare for arrival. The aircraft commander provides the C2 agency with the information on any factor that may affect mission accomplishment.

2.6. Aircrew Responsibilities. The aircraft commander is responsible for interaction between the aircrew and the C2 agency or the applicable support detachment. Any factor that may affect mission accomplishment, or when transiting a stop without a support agency, the aircraft commander will ensure necessary mission information is placed into the C2 system by the most expeditious means available. The aircraft commander will establish a point of contact with the appropriate C2 agency or support detachment prior to entering crew rest.

2.7. Operational C2 Reporting. The appropriate departure, arrival, or advisory message will be dispatched by the C2 agency (or aircraft commander when transiting a station without C2 capability).

2.7.1. Report movement information (actual time of departure [ATD], estimated time of departure [ETD], actual time of arrival [ATA], departure load data, delay information, etc.) directly to the ACC AOC (as appropriate) at stations without C2 agencies as soon as possible after landing using any means available. Relay pertinent data to the appropriate C2 agency by any means available after take-off.

2.7.2. All HF transmissions should be restricted to operational traffic, i.e. movement reporting, itinerary revisions, maintenance status, flight plan information, etc.

2.7.3. Enroute Reporting:

2.7.3.1. Support agencies may advise aircrews via the controlling ATC agency to establish contact when communication is needed. Refer to FLIP concerning global HF station communications procedures. Periodic "Ops Normal" calls or continuous monitoring of global HF station frequencies are normally not required. In times of increased tensions, constant monitoring of command and control channels may be required.

2.7.3.2. Monitor SATCOM (when available) and global HF stations on operational sorties for the duration of the mission and report "Ops Normal" as required by appropriate operations order (OPORD). Aircrews without SATCOM will relay "Ops Normal" reports to global HF stations, or by any available means, for relay to the controlling C2 agency as specified in the OPORD, operations plan (OPLAN), theater concept of operations (CONOPS), mission directive. Ensure that the global HF station controller is given relay instructions to send to the appropriate C2 agency.

2.7.3.3. Transmit HF arrival advisory on Busy Relays to the destination support agency or, in the absence of a local support agency, to the local command post when approximately 2-3 hours from destination. Furnish the following information as required:

2.7.3.3.1. Aircraft call sign

2.7.3.3.2. Mission number

2.7.3.3.3. ETB (estimated time in blocks). ETB is defined as ETA + 15 minutes

2.7.3.3.4. Maintenance status

2.7.3.3.5. DV status and honors codes. Transmit the DV code of each DV on board

2.7.3.3.6. Aircrews should request updates of the following information to aid in arrival or diversion decisions:

2.7.3.3.6.1. Weather at primary and alternate landing locations

2.7.3.3.6.2. NOTAM updates at primary and alternate landing locations

2.7.3.3.6.3. Airfield advisories at primary and alternate locations

2.7.3.3.6.4. Security arrangements at primary landing location

2.7.3.3.6.5. Billeting arrangements at primary landing location

2.7.3.3.6.6. Customs requirements

2.7.3.3.6.7. Transportation requirements

2.7.3.4. Aircrews transmit an arrival advisory as soon as UHF or VHF contact can be established with the destination C2 agency. The following information should be furnished:

2.7.3.4.1. Aircraft call sign

2.7.3.4.2. Mission number

2.7.3.4.3. ETB

2.7.3.4.4. Maintenance status

2.7.3.4.5. DV code and requirements

2.7.3.4.6. Number of passengers

2.7.3.4.7. Additional crewmembers (ACM)

2.7.3.4.8. Hazardous cargo and remote parking requirements

2.7.3.4.9. Additional service required

2.7.3.5. Airborne unclassified messages originated by DV passengers may be transmitted at the discretion of the aircraft commander.

2.8. Command, Control, and Communications (C3) Agencies:

2.8.1. The following telephone numbers are provided to assist crews in coordinating mission requirements through appropriate C3 agencies. Telephone numbers in this chapter are subject to change without notice.

Table 2.1. C3 Agencies (DSN, SOCS, Secure, Commercial).

Unit	DSN	SOCS	Secure	Commercial
HQ ACC/AOC	574-7771			1-800-642-5781
HQ AMC/DOT	576-3112			618-256-3112
TACC/Scott AFB	576-2227			1-800-221-5627
-Americas Cell	576-1747			618-256-1747
-East Cell	576-1748			618-256-1748
-West Cell	576-1749			618-256-1749
-Flight Planners	576-3325			618-256-3325
-Diplomatic Clearances	576-3008			618-256-3008
-LOCC	576-1763			618-256-1763
9AF/OV	965-3490			803-668-3490
10AF/DOT	685-3181			512-369-3181
12AF/DOV	228-2210			520-228-2210
15AF/DOV	837-1433			707-424-1433
19AF/DOV	487-6422			210-652-6422
21AF/DOV	440-2239		440-4542	606-724-2239
AFRC Command Center	497-0680			1-800-223-1784, ext. 0680
NGB Field Spt Cntr	858-6001			301-981-6001
HQ PACAF/AOS (AOK)	315-449-4821/2052		449-4833	808-449-4821/2052
HQ PACAF/AOS (AOK), (after hours)	315-449-4000			
Altus/97OG	866-6313			405-481-6313
Charleston/437AW	673-2531/2/3		673-2851	803-566-2531
Dover/436AW	445-4201		445-4190	302-677-4201
Fairchild/92OG	657-2151	3130	891-1571	509-244-3628
FE Warren/90MW	481-3921	4044	887-3690	307-632-9493
Grand Forks/319OG	362-6711	2030	871-1360	701-594-5778
Little Rock AFB (CP)	731-3200			501-988-3200

Unit	DSN	SOCS	Secure	Commercial
Malmstrom/43OPG	632-3801	2844	728-1490	406-452-8333
March/722ARW	947-2944	2030	4557 (4)	714-653-2200
McConnell/22OG	743-3251	6930	886-1740	316-685-7322
McChord/62AW	984-2635		984-2635	206-984-3251
McGuire/305AMW	440-3935		440-2823	609-724-3935
Mt Home/366WG	728-2071		728-6316	208-828-2071
Offutt/55WG	271-3725	3554	4551	402-291-2615
Pope AFB (CP)	486-4804			919-394-4804
Robins/19OG	468-2256	7530	431-3847 (3)	912-929-0051
Scott AFB (CP)	576-5891			618-256-5891
Seymour Johnson /4WG	722-5241	5730	722-1146	919-722-1381
Travis/60AMW	837-5517		837-5517	1-800-451-1333

Table 2.2. C3 Agencies (DSN, Commercial, Toll Free).

Unit	DSN	Commercial	Toll Free
70ARS KC-10/Travis	837-7010		
76ARS KC-10/ McGuire	440-6060/2519	609-724-6060/2519	
79ARS KC-10/March	947-4521	714-655-2961	
101ARW/Bangor	698-7788	207-990-7788	1-800 538-6636
105AW/Stewart	636-2245		
107ARW/Niagara Falls	238-2468	716-236-2468	
108ARW/McGuire	440-2127	609-724-2127	
117ARW/Birmingham	778-2416	205-841-9416	1-800-892-6713
121ARW/Rickenbacker	950-4468	614-492-4468	
126ARW/Chicago	930-6977	312-825-6977	
128ARW/Gen Mitchell	580-8475	414-747-4475	1-800-847-8129
134ARW/McGhee Tyson	266-4371	615-985-4371	
141ARW/Fairchild	657-7100	509-247-7100	
151ARW (Alert)/Hill	458-3135		
151ARW (Ops)/Salt Lake	924-9416	801-595-2416	1-800-214-5739
155ARW/Lincoln	946-1234	402-473-1234	1-800-255-0046
157ARW/Pease	852-2459	603-430-2459	1-800-472-0328
160ARG/Rickenbacker	950-4468	614-492-3316	
161ARG/Sky Harbor	853-9071/72	602-231-8071/72	1-800-435-5421
163OG/March	947-3741	909-655-3741	
164AG/Memphis	966-8183	901-541-8183	
168ARW/Eielson	317-377-1620		
171ARW/Pittsburgh	277-7374/7260	412-474-7260	1-800-615-7335
172AG/Jackson	731-9323	601-936-9323	

Unit	DSN	Commercial	Toll Free
186ARG/Meridian	778-9217	601-484-9217	
190ARG/Forbes	720-4663	913-861-4663	
203ARS/Hickam	315-449-0409	808-449-0409	
315OG/Charleston	673-2502	803-566-2502	
349OG/Travis	837-0084	707-424-0084	
433OG/Kelly	969-4330	210-977-4330	
434ARW/Grissom	928-2124	317-688-2124	
439AW/Westover	589-3571		
445OG/Wright-Patterson	787-5785	513-257-5785	
446OG/McChord	984-3883	206-984-3883	
452AMW/March	947-2250/3510	909-655-2250	
459OG/Andrews	858-7563	301-981-7563	
507ARW/Tinker	884-7641	405-734-7641	
514OG/McGuire	440-2552	609-724-2552	
927ARW/Selfridge	273-4917, ext. 377	810-307-4917, ext. 377	
940ARW/McClellan	633-6866	916-643-6866	

Table 2.3. C3 Agencies (DSN, Secure Drop, Commercial).

Unit	DSN	Secure Drop	Commercial
Andersen/633ABW	315-321-4212	Drp 30 6097 (23)	671-366-2203
Eielson/168ARS	317-377-1500/2230	940-6800 (2)	907-377-1500/ 2230
Hickam AFB (CP) HI	(315)449-9912	808-449-2360	
Howard/SOUTHCOM	313-284-3812		011-507-84-3512
Kadena/18WG	315-634-1876	Drp 30 6093 (5)	011-81-6117-34-1876
Lajes, Azores	535-4123		011-351-95-54-0100
Mildenhall/100ARW	314-238-2121	Drp 30 6570 (2)	011-44-638-54-2121
Osan AB (ACC) KOREA	(315)784-4288		
Ramstein/USAFE/DO	314-480-6170		49-6371-47-6170
Ramstein/EUCOM	314-480-7114		49-6371-47-7114
Rhein-Main AB (CP)	(314)330-7801		069-699-6081
Torrejon AB (ACC) SP	(314)723-3847	205-7220	
Yokota AB (OC) JA	(315)225-9667		0425-52-2511, Plus 9667

Chapter 3

CREW COMPLEMENT AND MANAGEMENT

3.1. Aircrew Qualification. Primary crewmembers, or those occupying a primary position during flight, must be qualified or in training for qualification for that crew position. The crewmember must be under the supervision of an instructor or flight examiner if non-current or in training.

EXCEPTION: Senior staff members (pilots only) who have completed the Senior Staff Course (A004) may occupy either pilot seat under direct IP supervision.

3.2. Crew Complement.

3.2.1. Minimum crewmembers for local flights are the pilot, copilot and one navigator. OG/CC will determine basic and augmentation requirements for mission crews.

3.2.2. Augmented crews are required when a mission cannot be safely completed within a basic FDP. Augmentees must be current and qualified in the aircraft. Non-mission-ready crewmembers will not be used as augmentees on operational sorties. If augmentees are added to the crew, the duty day of the most limited person will be used to compute flight duty period.

NOTE: At least one crewmember knowledgeable in passenger procedures will be assigned to supervise the passengers.

3.3. Mission-Essential Ground Personnel (MEGP):

3.3.1. MEGPs should normally be documented on the DD Form 2131, Passenger Manifest.

3.3.2. MEGPs may be seated on the flight deck or crew compartment during takeoff and landing with the concurrence of the aircraft commander. MEGP personnel must occupy a seat certified for takeoff and landing and wear safety belts/harnesses.

3.4. Crew Rest:

3.4.1. The aircraft commander may modify normal ground time in the interest of safety. Ground time can be modified to no less than 12 hours from the start of crew rest until mission reporting. Before reducing normal ground time, consider mission preparation time, time to load cargo, and other factors peculiar to the mission. The controlling C2 agency will not ask the aircraft commander to accept less than a normal ground time.

3.4.2. The crew chief is responsible to the aircraft commander. The aircraft commander, in conjunction with the en route station chief of maintenance, will determine how long the crew chief can safely perform aircraft recovery actions. The crew chief must have the opportunity to sleep 8 consecutive hours in each 24-hour period.

3.5. Orientation and Incentive Flights:

3.5.1. Individuals are authorized seating on the flight deck. They will not take precedence over ACM, MEGP, DV status, couriers, other revenue-generating passengers, or emergency leave personnel (Category I, space available). Refer to DOD 4515.13-R, *Air Transportation Eligibility*; AFI

11-401 *Flight Management*; ACCI 11-450, *Orientation Flight Program*; and the MAJCOM supplement.

3.5.2. No simulated emergencies or Touch-and-Go landings will be performed. **EXCEPTION:** Crews may conduct practice separations during air refueling provided the passenger(s) are seated with seat belts fastened.

Chapter 4

OPERATING GUIDELINES

4.1. Objectives. Final responsibility regarding equipment required for a mission rests with the aircraft commander.

4.1.1. When the aircraft commander discovers a discrepancy and considers that item essential for safe operation or mission completion, the aircraft commander will designate the component mission-essential (ME) in AFTO Form 781A, **Maintenance Discrepancy and Work Document**, along with a brief note explaining the reason for the ME status. The discrepancy will be cleared prior to departure unless the conditions requiring ME status changes. If an aircraft commander accepts an aircraft with a discrepancy it does not commit that same aircraft commander, or any other aircraft commander, to subsequent operations with the same discrepancy.

4.1.2. Discrepancies that could become ME if circumstances change will be designated as mission contributing (MC) in the AFTO Form 781A discrepancy block. Every effort will be made to clear MC discrepancies. Do not delay a mission in order to obtain corrective action.

4.1.3. Non-MC/ME discrepancies will receive the lowest priority and will normally be corrected at home station.

4.1.4. Engine performance, aircraft attitude, vertical velocity indications, altitude, speed, and heading instruments must be operative in both pilot positions.

4.2. Policy. This chapter lists the equipment and systems considered essential for routine as well as contingency operations. The restrictions apply at all times unless specified. This list indicates command restrictions only; it does not include all equipment or systems essential to airworthiness.

4.2.1. Unless otherwise indicated, the waiver authority for these restrictions is as follows:

4.2.1.1. Waivers are not normally authorized for missions under the operational control of the home unit (locals). If circumstances require an immediate waiver, the OG/CC or equivalent is the waiver authority.

4.2.1.2. In all other situations, waiver authority for ACC is HQ ACC/DO. Contact HQ ACC/DIS with questions concerning waiver authority for this volume.

4.3. Operating Restrictions. MAJCOMs may establish their own equipment list required for flight or as mission requirements dictate.

4.4. Three-Engine Ferry Operations. Three-engine operations during peacetime will only be accomplished after exhausting all other avenues to return an aircraft with an inoperative engine to mission capable status. HQ ACC/DO must approve three engine ferry sorties.

4.5. Flight Maneuvers. Maneuvers listed in [Table 4.1](#) are authorized for qualification and continuation training. Maneuvers restricted to the formal training unit (FTU) will only be performed during formal training under direct supervision of an FTU instructor. Formal training units include: CCTS, CFIC or an air staff approved formal training unit operating with a HQ ACC/DO approved syllabus for the training being conducted. They are applicable to all mission and series RC/OC/WC/TC-135 aircraft, except when

prohibited or restricted by the flight manual or other current directives. **Maneuvers requiring direct instructor pilot supervision means the IP must have immediate access to the flight controls.**

Table 4.1. Maneuvers Authorized for Qualification and Continuation Training.

Maneuver	Pos.	WX	Restrictions
Touch-and-Go	IP/AC	Note 3,4,5	Note 2,6,8
App. And Landing, Sim Engine Out	IP/AC	Note 1,3	Note 2
App. And Go-Around, Sim. Engine Out (Rudder Power On) RCR N/A	IP/AC	Note 1	
App. Go-Around, Sim. Engine Out (Rudder Power Off) RCR N/A	IP/D	Note 1	
Sim. 3 Engine Touch 4 Engine Takeoff	IP/D	Note 1,3	Note 2,6
Sim. Engine Failure Takeoff Continued	IP/D	Note 1	Note 7
Sim. 2-Engine Landing (using 3 or 4 engine)	IP/D	Note 1,3	Note 2,6
Sim. Jammed Stabilizer	IP/D		
30 Flap Touch-and-Go	IP/D	Note 3,5	Note 2,6
Landing Attitude Demo	IP/D		Note 2
Air Refueling Limits	IP/D		
Spoiler/Lateral Control Demo	IP/S		
Trim Demo	IP/S		
Simulated Engine Failure on the Runway	OFT		
No-Airspeed or AOA App. and Landing	FTU		
Low Altitude Go-Around	FTU		
Combat Departure	OFT		
Runaway Stabilizer Trim	OFT		
Initial Buffet	OFT		
IP/D – Direct IP supervision is required. (IP at the controls)			
IP/S - IP supervision is required.			
Notes: 1. Instructor Pilots-day or night. 1000/2 miles or circling minimums for the approach being flown, whichever is higher, with an RCR of 9 or greater. Aircraft commanders-day only. 3000/3 miles with an RCR of 23. Aircraft Commanders may not supervise 3 engine maneuvers. 2. Use a runway of sufficient width and length to permit a safe, normal, full-stop landing. 3. Maximum crosswind component is 15 kts for IP supervised, 10 kts for aircraft commander. 4. Aircraft commander minimums are 1000/3, or published minimums whichever is higher. 5. IP minimums are 200/ ½ mile visibility, 2400 RVR, or published minimums, whichever is higher. 6. Do not accomplish Touch-and-Go landings on slush covered runways, with an RCR less than 9, or with less than 10,000 pounds of useable fuel. 7. Do not retard the throttle on an engine failure after takeoff prior to 200 feet AGL. 8. Aircraft commanders must be certified by squadron commanders to conduct or supervise copilot Touch-and-Gos.			

4.6. Touch-and-Go Landing Limitations:

4.6.1. Current and qualified IPs and ACs are authorized to supervise and conduct Touch-and-Go landings under the following conditions:

4.6.1.1. Flight manual restrictions and procedures apply.

4.6.2. Supervision of Touch-and-Go Landings. Review the following:

4.6.2.1. Engine failure, including recognition and corrective action.

4.6.2.2. Abort consideration.

4.6.2.3. Proper use of spoilers, flaps, and trim.

4.7. Operating Limitations. Do not practice emergency procedures that degrade aircraft performance or flight control capabilities unless specifically authorized elsewhere in this section.

4.7.1. The pilot or IP will alert all applicable crewmembers prior to practicing emergency procedures.

4.7.2. In an actual emergency, terminate all training and emergency procedures practice. Training should be resumed only when the pilot in command determines it is safe.

4.7.3. Flight examiners conducting evaluations should determine whether or not to suspend the evaluation during an actual emergency condition. Safe recovery of the aircrew and aircraft is the main priority. Evaluators will take an active role in ensuring the safe recovery of the aircrew and aircraft.

4.7.4. The powered rudder will be on for all takeoffs and landings except for an actual system failure.

4.7.5. Do not simulate failure of two engines in flight while conducting simulated engine out procedures. Do not actually shut an engine down for training.

4.8. Airborne Radar Directed Approach (ARDA). Comply with the following when practicing an ARDA.

4.8.1. Perform an ARDA using a DOD or FLIP terminal non-precision approach procedures.

4.8.2. The pilot monitoring the ARDA will terminate the ARDA and resume radio aid navigation any time the aircraft approaches full-scale course deflection for the instrument approach procedure being flown.

4.8.3. ATC clearance will be obtained for the selected non-precision approach.

4.9. Performance Requirements. Do not practice traffic pattern operations, instrument approaches, low approaches or go-arounds at gross weights that will not afford a minimum of 500 feet per minute rate of climb at approach speed, 3 engines, flaps 30, gear up (gear down for emergency procedures practice). Include the effect of the air conditioning systems.

4.9.1. Limit angle of bank to 30 degrees during traffic pattern operations.

4.9.2. Practice Emergency or Abnormal Gear and Flap Operation must be accomplished clear of clouds (not applicable when IP has direct access to flight controls). May be accomplished day or night.

4.10. Landing Limitations. The following limitations apply to both Touch-and-Go and full stop landings:

4.10.1. Flap Setting. Do not practice landings with less than 30 degree flaps. Thirty degree flap, full stop landings are prohibited except in emergencies that dictate 30 degree flaps as the optimum or only landing configuration. Full stop landings should normally be made with 50 degree flap settings. Careful consideration should be given to runway length, landing distance (including flare and stopping distance), crosswinds, RCR, and other factors influencing the landing ground roll in deciding to land with less than 50 degrees of flaps.

4.10.2. Gross Weight. Landing gross weights will not exceed 210,000 pounds for normal operation. If mission requirements dictate, and a safe stopping distance exists, the MAJCOM/DO may authorize landings up to flight manual weight limits.

4.10.3. Multiple Full Stop Landings. Compute brake energy prior to each subsequent takeoff.

4.10.4. Missed Approaches. Initiate a planned missed approach not later than 200-foot HAT on a visual approach. Does not preclude a landing attitude demonstration.

4.11. Prohibited In-flight Maneuvers. The following maneuvers will not be practiced or demonstrated in flight:

4.11.1. Stalls

4.11.2. Spins

4.11.3. Dutch roll

4.11.4. Emergency descent

4.11.5. Unusual attitudes

4.11.6. Compound emergencies (except simulated engine-out with rudder power off)

4.11.7. Tactics maneuvers (unless MAJCOM-approved)

4.11.8. Initial buffet

4.11.9. Turns greater than 45 degree bank (except MAJCOM-approved tactics maneuvers)

4.11.10. Any flight manual prohibited maneuver

4.12. Low Altitude Operations (OC-135). The following low altitude (LA) procedures are provided in support of Open Skies in-flight operational and training missions planned or flown at altitudes between 3000 and 6000 feet AGL overland. LA operations will not be conducted below 3000 feet AGL.

4.12.1. Planning:

4.12.1.1. The selected altitude will provide a minimum clearance of 3000 feet from the highest obstruction or terrain within 4 nms of planned course centerline.

4.12.1.2. Crews will obtain a turbulence forecast for the planned LA route and, if possible, avoid areas of known/suspected turbulence.

4.12.1.3. Obtain bird migration data on each planned LA sortie from HQ AFSA/SEFW at DSN 246-0698 or Commercial (505) 846-0698 when available.

4.12.2. Hazardous Weather Flight Restrictions:

- 4.12.2.1. All LA flights will be conducted in Day VMC conditions unless the flight is operating on an IFR clearance in controlled airspace.
- 4.12.2.2. Do not conduct LA flights in areas of forecast severe icing conditions or in areas of reported moderate or severe icing conditions.
- 4.12.2.3. Do not conduct LA flights in areas of forecast severe turbulence or reported moderate or severe turbulence.
- 4.12.2.4. Immediately terminate LA operations if surface winds exceed 40 knots and when moderate or greater turbulence is experienced. This will avoid the possibility of the aircraft reaching its structural limits caused by wind gust factors.
- 4.12.2.5. If continuous moderate or greater turbulence is encountered, or the Turbulence Over-G indicator light illuminates, slow to lowest practical airspeed and flight plan deviate or abort the route as soon as possible.

4.12.3. Equipment Requirements:

- 4.12.3.1. Window heat operative.
- 4.12.3.2. Yaw damper system operative.
- 4.12.3.3. Turbulence Over-G indicator system (if equipped) operative.
- 4.12.3.4. Cockpit accelerometer operative unless equipped with Turbulence Over-G indicator system.
- 4.12.3.5. Inertial navigation system able to provide safe corridor navigation.

4.12.4. Crew Requirements:

- 4.12.4.1. Route study emphasizing altitude requirements, in-flight route deviation plan, and abort procedures.
- 4.12.4.2. Use of the instructor seat by a non-mission-essential crewmember to help visually clearing for birds and other traffic is encouraged.
- 4.12.4.3. Aircraft speed during LA will not exceed 250 KIAS or best endurance airspeed +10 Knots, whichever is greater.
- 4.12.4.4. Reserve tanks will remain full during LA activity.
- 4.12.4.5. Operate the window heat on the high setting during LA to increase bird strike resistance.
- 4.12.4.6. Duration at LA is limited to three hours per basic crew per day and four hours if the crew is augmented.
- 4.12.4.7. The aircraft commander may terminate LA ops for fatigue or any other reason deemed appropriate.
- 4.12.4.8. Enter duration, airspeed, and any moderate or greater turbulence encountered during LA into the aircraft AFTO Forms 781.
- 4.12.4.9. Submit AFTO Form 76 after each flight IAW T.O. 1C-135-38, *Aircraft Structural Integrity Program*.

4.12.4.10. Report observed hazardous low altitude bird activity to planners during mission debriefing.

4.12.4.11. Deleted.

Chapter 5

OPERATIONAL PROCEDURES

5.1. Checklists:

5.1.1. A checklist is not complete until all items have been accomplished. Momentary hesitations for coordination items, ATC interruptions, and deviations specified in the flight manual, etc., are authorized. Notes amplifying checklist procedures and limitations may be added to the checklists (in pencil).

5.1.2. Only insert current approved checklist and information guides in checklist binders. 55OG/OGV is the approval authority for locally produced guides.

5.2. Duty Station. A qualified pilot will be in control of the aircraft at all times during flight. **EXCEPTION:** Unqualified pilots undergoing qualification training or senior staff members who have completed the Senior Staff Course. All crewmembers will be at their duty station or in an approved seat during all takeoffs, departures, air refuelings (AR), approaches, and landings. During other phases of flight, crewmembers may leave their duty station for brief periods of time. The IP seat (as applicable) should be occupied to assist the crew in avoiding other aircraft during takeoff, departure, low level, penetration, approaches and landings when additional aircrew personnel are aboard. Crewmembers will notify the crew area commander (e.g. Pilot, Raven or AMS as applicable) prior to departing assigned primary duty stations.

5.3. Flight Station Entry. Aircraft commanders may authorize passengers and observers access to the flight station during takeoff, climb, air refueling, descent, and landing only if seats with seat belts are available. Passengers and observers will not be permitted access to the pilot or copilot position regardless of its availability. During takeoff and landing, observers will be seated in a seat approved for use in takeoff and landing with appropriate safety belts and shoulder harnesses fastened.

5.4. Takeoff and Landing Policy. The pilot flying must be current and qualified for the maneuver being flown or under direct IP supervision if regaining currency or if undergoing upgrade qualification training.

5.5. Outside Observer. Use a crewmember to assist in outside clearing during all taxi operations and any time the aircraft is below 10,000 feet MSL when available.

5.6. Seat Belts:

5.6.1. Crewmembers occupying the pilot, copilot, navigator, or additional crew member positions will have seat belts fastened at all times in accordance with T.O. procedures unless crew duties dictate otherwise.

5.6.2. All crewmembers will be seated with seat belts and shoulder harnesses fastened during taxi, takeoff, and landing, unless crew duties dictate otherwise. For AR operations, all aircrew members should (passengers will) be seated with seatbelts fastened (**EXCEPTION:** Orientation flights). Crewmembers performing instructor or flight examiner duties are exempt from seat belt requirements; however, a seat with an operable seat belt will be assigned and should be used unless it would interfere with performance of duties.

5.7. Communications Policy:

5.7.1. Aircraft Interphone:

5.7.1.1. Limit transmissions to those essential for crew coordination during all critical phases of flight.

5.7.1.2. Do not discuss classified information on interphone if uncleared personnel are on interphone.

5.7.1.3. Primary crewmembers will monitor interphone.

5.7.2. Command Radios:

5.7.2.1. The pilot not flying the aircraft normally makes all ARTCC radio calls.

5.7.2.2. In terminal areas the pilot, copilot, and navigator, will monitor the primary command (ATC) radio unless directed otherwise. Pilots should not monitor C2 frequency in the terminal area. The navigator or designated crewmember should monitor C2 frequencies on the inbound and outbound leg, during takeoff, climb-out, descent, approach, landing and traffic pattern operations, unless otherwise directed.

5.7.2.3. Both pilots will monitor UHF Guard (VHF Guard when appropriate) emergency frequency regardless of primary radio.

EXCEPTION: Pilots will not monitor guard frequencies during receiver rendezvous and AR. The navigator normally monitors guard during the receiver AR.

5.8. Runway, Taxiway, and Airfield Requirements. Landing distance will not exceed runway available. Landing distance will be computed based on actual aircraft configuration, and runway conditions and will include flare distance and ground roll using 80% delayed braking factor. The 80% delayed braking factor may be waived by the applicable OG/CC.

5.8.1. For all missions, when computing takeoff performance data and 1000 feet of overrun is not available, a portion of the runway will be subtracted from runway available to meet the 1000 ft. overrun requirement, i.e. an 8500 ft. runway with a 600 ft. overrun; the runway available for takeoff computations is 8100 ft. In all cases, ensure obstacle clearance requirements are met.

5.8.1.1. Operations are still authorized into an airfield without a suitable overrun.

5.8.1.2. The squadron commander will approve crews to use reverse thrust data.

5.8.2. If takeoff end overruns are available and stressed or authorized for normal operations they may be used to increase the runway available for takeoff for mission accomplishment.

5.8.3. Takeoffs will normally be initiated from the beginning of the approved usable portion of the runway. The decision to make intersection takeoffs rests solely with the aircraft commander.

5.8.3.1. Intersection takeoffs may be accomplished provided the operating environment (i.e. gross weight, obstructions, climb criteria, weather, etc.) will allow a safe takeoff and departure.

5.8.3.2. Takeoff and landing data (TOLD) card computations will be based on the actual runway remaining from the point at which the takeoff is initiated when less than the entire runway is used.

5.8.4. An RCR 15 may be used for computing takeoff performance for all operational and training missions when wet runway conditions exist at RAF Mildenhall and RAF Fairford. This authorization

does not apply to landing data computations or when standing water is on the runway. Determination of standing water versus wet runway conditions at RAF Mildenhall will be made by the 100OG/CC.

5.8.5. All RC/OC/TC/WC-135 aircraft departing from Honolulu International Airport will comply with locally developed noise abatement procedures. Aircraft will remain west of Aloha Tower, south of Ewa Beach, and at least 1 mile offshore of Waikiki, Diamond Head, Koko Head, and Ewa Beach.

NOTE: Coral extension of Hickam reef fulfills overrun requirements.

5.8.6. Operational reconnaissance missions and OPEN SKIES Joint Trial/Treaty missions operating from runways with grooved or porous surfaces are authorized to use an RCR 15 to compute critical field length, critical engine failure speed and refusal speed when the runway RCR is reported as wet. Other takeoff speeds will be computed using current flight manual procedures and comply with any limitations imposed by supplementing command regulations. Present flight manual procedures for computing takeoff data with a reported RCR, other than "wet runway," or RSC (ice, snow, and slush) are valid and remain unchanged. This special procedure does not apply to landing data computations.

5.9. Aircraft Taxi Obstruction Clearance Criteria:

5.9.1. When taxi clearance is doubtful use one or more wing walkers. Deplane crewmembers to maintain obstruction clearance and provide marshaling if wing walkers are not available. Use approved signals from AFI 11-218, *Aircraft Operation and Movement on the Ground*. The aircraft commander should use marshalers and wing walkers or deplaned crewmembers to act as observers while maneuvering on taxiways less than 75 feet wide. Marshalers will have two wands, at least one illuminated, during night taxi operations.

5.10. Fuel Reserves and Alternate Airport Requirements. (See AFI 11-202V3, *General Flight Rules*). This paragraph implements standard command fuel reserves and alternate airport requirements for the RC/OC/WC/TC-135.

5.10.1. Required ramp fuel will consist of all fuel required for engine start, taxi, takeoff, climb, cruise, alternate or missed approach (if required), holding, descent, approach, transition, landing, and fuel reserve. Final landing fuel will not be less than 10,000 pounds of usable fuel.

5.10.2. Aircraft filing to the following destinations will have sufficient fuel over the destination fix or radio check-in points to reach the designated alternate with an additional 10,000 pounds usable fuel reserve:

5.10.2.1. United Kingdom

5.10.2.2. Spain

5.10.2.3. Goose Bay

5.10.2.4. Greenland

5.10.2.5. Alaska--from October to April

5.10.3. Authorized Fuel Loads and Sequences. Aircraft will be loaded with fuel according to requirements of the handbook of weight and balance data. The OG/CC or equivalent will issue waiver approval.

NOTE:

1. Units may develop standard alternate fuel requirements for local training missions; however, these fuel requirements will not be less than those specified in this volume.

5.11. Fuel Jettisoning Procedures. Fuel jettison is limited to the minimum necessary for safe and effective flight operations.

5.11.1. Units will establish jettison areas and procedures to minimize the impact of fuel jettisoning into the atmosphere.

5.11.1.1. Designate jettison areas off published airways and avoid urban areas, agricultural regions, and water supply sources.

5.11.1.2. Avoid circling descents.

5.11.1.3. Use jettison altitudes above 20,000 feet above ground level to the maximum extent possible.

5.11.1.4. Use designated jettison areas to the maximum extent possible except when safety of flight will be compromised.

5.11.1.5. Record all pertinent data to include flight conditions, altitude, airspeed, air temperature, wind direction and velocity, type and amount of fuel, aircraft type and position at time of jettison, time and duration of jettison activity, and reason jettison was accomplished.

NOTE: Unit commanders will retain the information in paragraph **5.11.1.5.** for 6 months as documentation in the event of claim against the government resulting from fuel jettison.

5.12. Autopilot Failure. The aircraft commander may reduce the crew duty day or continue the mission as planned if any axis of the autopilot is inoperative. The aircraft commander should carefully consider several factors in deciding whether to reduce the crew duty day. Factors include: type of mission being flown, support provided, degree of pilot fatigue, and the possible degradation of mission accomplishment due to a malfunctioning autopilot.

Chapter 6

AIRCREW PROCEDURES

Section 6A—Pre-Mission

6.1. Aircrew Uniform:

6.1.1. As outlined in AFI 36-2903, *Dress and Personal Appearance of Air Force Personnel*, wear the aircrew uniform on all missions unless otherwise authorized. When DOD 4500.54-G, *Foreign Clearance Guide (FCG)*, requires civilian attire, wear conservatively styled civilian clothing.

6.1.2. Personnel will have, in their possession, the appropriate items of clothing when flying in Arctic and Antarctic regions. **EXCEPTION:** Not applicable to transoceanic flights or when staging or transiting Elmendorf.

6.1.3. See AFI 10-403, *Deployment Planning*, for mobility requirements.

6.2. Personal Requirements:

6.2.1. Shot Record. Ensure immunization requirements are met. Carry shot records on all missions outside the CONUS. RC/OC/TC/WC-135 crewmembers must maintain worldwide shot requirements.

6.2.2. Driver's License. A valid state driver's license is required on each TDY where use of US Government general purpose vehicles may be required. Contact the local airfield manager if vehicle will be operated on the flightline.

6.2.3. Identification Tags. Required to be in crewmember's possession when performing flight duties.

6.3. Pre-Mission Actions:

6.3.1. Review tasking, itinerary, and ALTRV requirements.

6.3.2. Review applicable operations orders (OPORD), directives, and FLIP.

6.3.3. Review the *Foreign Clearance Guide* (if applicable). Obtain necessary diplomatic clearances where required.

6.3.4. Obtain required customs forms.

6.3.5. Complete TDY order request forms (if required).

6.3.6. Obtain computerized flight plans, as appropriate.

6.3.7. Coordinate with combat crew communications for worldwide FLIP and sufficient COMSEC materials for duration of the mission.

6.3.8. Review anti-hijacking procedures (AFI 13-207, *Preventing and Resisting Piracy [Hijacking]*).

6.3.9. Ensure physiological training, annual physical, immunizations, and qualification checks will remain current throughout the TDY period.

6.3.10. Obtain visas, if required.

6.3.11. Compile sufficient spare forms, flight orders, and mission accomplishment reports (MAR).

6.3.12. Release available seats to passenger terminal if control agency and aircraft commander agree that carrying of passengers will not adversely affect mission accomplishment.

6.4. Aircrew Publications Requirements. Primary crewmembers will carry the publications specified in **Table 6.1.** on all missions.

Table 6.1. Aircrew Publications Requirements.

Publication	AC	CP	NAV	EWO	IMT	67IW
T.O. 1C-135(*)*-1, <i>Flight Manual</i>		X				
T.O. 1C-135(*)*-1-1, <i>Performance Manual</i>		X				
T.O. 1-1C-1, <i>Basic Air Refueling (AR)</i>		X				
T.O. 1-1C-1-14, <i>AR Receiver</i>		X				
T.O. 1-1C-1-14CL-1, <i>AR Receiver Pilot Checklist</i>	X	X				
T.O. 1-1C-1-14CL-2, <i>AR Receiver Navigator Checklist</i>			X			
T.O. 1C-135(*)*-1CL-1, <i>Pilot's Checklist</i>	X	X				
T.O. 1C-135(*)*-1CL-2, <i>Nav's Checklist</i>			X			
T.O. 1C-135(R)S-1CL-4, <i>Recon Area Crewmember Checklist (RC-135S only)</i>				X	X	X
T.O. 1C-135(*)*-1CL-5, <i>Recon Area Crewmember Checklist (RC-135U/V/W only)</i>				X	X	X
T.O. 1C-135(O)B-43-1-1CL-4, <i>Sensor Maintenance Tech. Checklist (OC-135)</i>					X	
AFI 11-202V3, <i>General Flight Rules</i>	X					
AFI 11-2RC-135V3, <i>RC/OC/WC/TC-135—Operations Procedures</i>	X					
Associated directives per wing guidance	X					
Note: Other checklists may apply. * Denotes particular aircraft model						

Section 6B—Pre-departure

6.5. Airfield Certification. All pilots, navigators, and staff mission planners will review airport qualification audiovisual slide tape programs as available before operating missions into unfamiliar airfields. In addition, they will review the AMC Airfield Suitability and Restrictions Report and should contact HQ AMC/DOTV for updates to airfield operability and weight bearing capability.

6.6. Aircrew Intelligence Briefing. Crews will receive an intelligence briefing that emphasizes terrorist, enemy, and friendly political and military development in the area in which they will be flying prior to leaving home station on missions departing the CONUS. Once in theater, aircrews should receive intelligence updates on initial arrival at a forward operating location (FOL) or en route stop and thereafter when

significant developments occur. Report information of possible intelligence value to the local intelligence officers at the completion of each mission.

6.7. Flight Crew Information File (FCIF) Procedures:

6.7.1. Review FCIF (Volume 1, Part B) before all missions or ground aircrew duties and update the FCIF currency record with the latest FCIF item number and crewmembers initials.

6.7.2. Crewmembers delinquent in FCIF review or joining a mission en route will receive an FCIF update from a primary aircrew member counterpart on the mission. Instructor pilots who fly with general officers are responsible for briefing appropriate FCIF items.

6.7.3. Crewmembers not assigned or attached to the unit operating a mission will certify FCIF review by entering the last FCIF number and their initials behind their name on the file copy of the flight authorization or file copy of their ACM orders.

6.8. Airfield Security. Aircraft commanders should review applicable security publications when departing on missions destined outside the CONUS.

6.9. Briefing Requirements:

6.9.1. Pre-Deployment Briefing. The Current Operations Branch conducts this briefing as a final aircrew briefing for aircrews deploying overseas. Consider the crew rest and crew duty day and the limitations in AFI 11-202V3, *General Flight Rules*, when establishing the briefing time. The purpose of this briefing is to advise aircrews of the latest weather information, mission changes and to review all specialty information. Unit staff personnel should conduct the pre-deployment briefing. All participating crewmembers and designated spares must attend the briefing. The briefing should be concise and will follow MAJCOM/NAF/wing guidance.

6.9.2. Weather Briefings. Request a written weather briefing on DD Form 175-1, **Flight Weather Briefing**, or other MAJCOM-approved form. Obtain a briefing on current weather, trends, and forecast for the proposed route, destination, and alternates. If the flight will transit non-Air Force bases, crews must make arrangements to ensure adequate weather support facilities and services are available. If adequate services are not available, crews will obtain weather support through any means available to ensure required weather data is in their possession prior to mission accomplishment. When face-to-face briefings are not possible, obtain a telephone weather briefing (precedence up to and including IMMEDIATE is authorized). The designated MAJCOM regional briefing stations provide these for CONUS flights.

6.9.3. Peacetime and Wartime SAFE PASSAGE Procedures. Aircrews must be familiar with the peacetime and wartime SAFE PASSAGE of friendly military aircraft procedures contained in United States Strategic Command (USSTRATCOM) Directive 512V1, V2 and V3. (N/A OC-135)

6.10. Call Signs:

6.10.1. Training Missions. Aircraft will use the static call sign prefix followed by a 2-digit suffix assigned by the parent unit.

6.10.2. Operational Missions. Aircraft will use call signs assigned by OPORD or diplomatic clearance. If no call sign has been assigned to the mission, use the unit static call sign suffixed by a static 2-digit suffix assigned by the parent unit.

6.11. Flight Plan Verification:

6.11.1. Aircrews should acquaint themselves with the mission and individual sortie requirements to ensure successful mission accomplishment. Wing and squadron staff should monitor crew activity and be available to resolve problem areas.

6.11.2. Contracted CFPs or CFPs available from Advanced Computer Flight Plan (ACFP) are the official sources of performance, navigation, and climatic data, including en route wind information. If stand-alone microcomputer based plans are used, each mission segment should utilize best wind data available.

6.11.3. Flight crews may manually compute flight plans, use mainframe based and contracted CFPs obtained through interactive access, or utilize CFPs provided by the staff. CFPs should be utilized to the maximum extent practical. The flight crew has final responsibility for accuracy of the flight plan used.

6.11.4. CFPs will be verified by the flight crew for route definition and fuel computation accuracy prior to departure. Range summary charts in Section 5 of the performance manual will be used to determine the validity of CFP fuel burn rates. Include both the CFP index and the plan number when reporting incorrect CFPs.

6.12. Departure Planning:

6.12.1. Gross weight may be restricted by operating conditions such as temperature, pressure altitude, runway length and slope, aerodrome weight bearing capacity, departure maneuvering, and known limiting obstacles.

6.12.2. Appropriate terrain charts should be reviewed prior to departure, if applicable. SIDs and radar vectors are the preferred departure methods. IFR departure procedures are available at some civil and military fields to assist in avoiding obstacles during climb to the MEA and are published in the FLIP terminal approach books (depicted weather minima do not apply to RC/OC/TC/WC-135 aircraft). Coordinate with the controlling agency prior to takeoff if unique routing is required.

6.12.3. Do not equate SID-required climb gradients to aircraft climb profiles since aircraft climbout is not linear. Performance losses in turns, engine out performance loss, etc., are not considered, and actual gradients may be below those depicted on the SID. Use performance manual procedures to plot all significant obstacles in order to determine required performance.

6.13. Obstacle Clearance Planning:

6.13.1. One of the best sources for obstacle information is the AMC Suitability and Restrictions Report. Call HQ AMC/DOTV for other airfield obstacle data. The aircraft commander must be aware and thoroughly brief the crew on all obstacles along the departure flight path.

6.13.2. SIDs simplify ATC procedures while providing safe routing to the en route structure; however, SIDs should not be used as the sole source of obstacle information for departure planning or inadequate (engine out) obstacle clearance may result. SIDs, instrument approach plates, topical sectional charts, and diverse departure routes must be used to determine the distance and height values for all significant obstacles encountered along the flight path.

6.13.3. The controlling obstacle is defined as the obstacle requiring the greatest climb gradient within the flight path. Obstacles are not depicted on SIDs when gradients of less than 152 feet per NM are required to clear them.

6.14. Alternate Planning:

6.14.1. Choose alternates that best meet mission requirements and conserve fuel. Those selected should not be within the terminal area, if terminal forecasts are marginal. Select alternates that are not restricted by FLIP, FCG, or diplomatic clearances and are compatible with the mission load and performance characteristics of the aircraft.

6.14.2. The aircraft commander retains final authority in the choice of alternates; however, selection by support agencies normally should be used if they meet the above criteria.

6.15. Adverse Weather:

6.15.1. The following procedures will help to minimize exposure to thunderstorm hazards when operating in the vicinity of an aerodrome in an area where thunderstorms are occurring or are forecast:

6.15.2. Try to maintain VMC.

6.15.3. Maintain at least a 5-NM separation from heavy rain showers.

6.15.4. Avoid areas of high lightning potential, i.e. clouds within plus or minus 5000 feet of the freezing level.

6.15.5. Do not takeoff or land under conditions of freezing rain or freezing drizzle or when thunderstorms are producing hazardous conditions (such as hail, strong winds, gust fronts, heavy rain, wind shear, or microbursts).

6.15.6. Maximum crosswind for takeoff and landing during peacetime is 25 knots. RCR may limit this capability. The OG/CC may authorize launch or recovery of aircraft within the maximum flight manual restrictions if mission requirements dictate.

6.15.7. Aircrews performing approaches and landings at locations where temperatures are 0 degrees centigrade or below will refer to the Flight Information Handbook, section D, Temperature Correction Chart, to establish a corrected HAA, HAT, and MDA as appropriate.

Section 6C—Pre-Flight

6.16. AFTO Form 781, AFORMS--Aircrew/Mission Flight Data Document. Review AFTO Form 781 before applying power to the aircraft or operating aircraft systems. The exceptional release must be signed before flight. A maintenance officer, maintenance superintendent, or authorized civilian normally signs the exceptional release. If one of these individuals is not available, the aircraft commander may sign the exceptional release. Ensure that the Air Force fuel identaplate is aboard the aircraft. In situations where power is already on the jet when the aircrew arrives, the AFTO 781 will be reviewed as soon as practical after arriving at the aircraft.

6.17. Aircraft Servicing and Ground Operations. In an emergency situation aircrew members may perform refueling duties when qualified maintenance support is not available. Crewmembers may augment maintenance refueling teams at en route stops.

6.18. Aircraft Recovery Away From Main Operating Base (MOB). When an aircraft will land at a base other than MOB, crew chiefs should accompany the aircrew when not otherwise dictated by mission requirements. Aircrew/crewchiefs will accomplish the following:

- 6.18.1. Supervision of minor maintenance within local capability.
- 6.18.2. Minor configuration changes to meet mission tasking.
- 6.18.3. Securing the aircraft prior to entering crew rest.
- 6.18.4. Coordinating aircraft security requirements.
- 6.18.5. AFTO 781-series forms maintenance.
- 6.18.6. Arrange billeting and transportation.

NOTES:

1. The aircraft commander will insure aircrews that turn aircraft without qualified maintenance specialist assistance comply with the appropriate maintenance T.O.
2. Aircrews are not qualified to accomplish the required ground inspections. In those instances where maintenance personnel are not available, the aircrew will enter a red dash symbol in the AFTO Form 781H, **Aerospace Vehicle Flight Report and Maintenance**, updating current status and enter a red dash symbol in a discrepancy that reflects that the applicable maintenance inspection (i.e. preflight, through-flight, basic post-flight) is overdue.

6.19. Oxygen Requirements. When movement about the aircraft is necessary for relief, crew duties, etc. comply with the oxygen requirements in AFI 11-202V3, *General Flight Rules*, using the "Cabin/Cargo Area Crew column." An authorized walk around bottle satisfies the requirement.

6.20. Cargo Documentation. Proper cargo documentation must accompany each cargo load. A cargo manifest is required prior to all departures with cargo, unless one is not available because of a lack of or failure of manifest processing equipment. In this case, a cargo listing or a punch card deck will accompany the load. The cargo or mail listing may be an abbreviated manifest, but will contain all required MILSTAMP data and 463L pallet information for weight and balance purposes. Special handling documents (DD Form 1387-2, **Special Handling Data Certification**, and DD Form 1252, **US Customs Declaration for Personal Property Shipments**) are required for special handling cargo.

6.21. Procedures for Airlifting Hazardous Cargo. Procedures for airlifting hazardous cargo can be found in the following publications: AFI 24-201 *Cargo Movement*; AFI 24-202 *Preservation and Packing*; AFJI 11-204, *Operational Procedures for Aircraft Carrying Hazardous Materials*; AFJMAN 24-204 *Preparing Hazardous Materials for Military Air Shipments*.

Section 6D—Departure

6.22. On-Time Takeoffs. Mission departures are on time if the aircraft is airborne within plus or minus 30 minutes of scheduled takeoff time.

6.22.1. Receiver AR Missions. Scheduled takeoff time may be adjusted as necessary to meet the rendezvous control time (e.g. ARCT). Notify scheduling and controlling agency of any deviations affecting the control time.

6.22.2. Early Departures:

6.22.2.1. Home Station. Early departures are authorized to prevent a delay due to weather, ATC restrictions, airfield or aircraft operational limitations, to adjust mission flow during a large-scale operation, or if approved through appropriate command and control agency.

6.22.2.2. En route Stations. Early departures at en route stations may be authorized by the appropriate command and control agency provided the impact on local and downrange facilities and crew duty is evaluated.

Section 6E—En route

6.23. Flight Progress:

6.23.1. Plot the route of flight on an appropriate chart (e.g. OPC, JNC, GNC, Jeppesen) prior to flight. Annotate the chart with the mission number, aircraft commander's name, preparer's name and date. Charts may be reused if practical.

6.23.2. Use all available NAVAIDs to monitor INS/GPS performance in-flight. Immediately report malfunctions or any loss of navigation capability which degrades centerline accuracy to the controlling ARTCC. Use the following procedures for flight progress:

6.23.2.1. Whenever possible, obtain a coast out fix prior to, or immediately upon entering the Category I Route or overwater segment. Perform a gross error check using available NAVAIDs and annotate the position and time on the chart.

6.23.2.2. When approaching a waypoint, validate the coordinates of the next waypoint.

6.23.2.3. Plot the INS position at each oceanic waypoint on the chart. The crew will ensure compliance with course and ETA tolerances in conjunction with oceanic position reporting.

6.23.2.4. Record and plot the new route of flight on the chart if a revised clearance is received.

6.23.3. Turn in the charts (copies if reused) and applicable computer flight plans (CFP) to Current Operations or applicable organization after mission completion. Retain the charts, CFPs, and associated materials in accordance with appropriate guidance in AFMAN 37-139, *Records and Disposition Schedule*.

6.23.4. Maintain a range control chart or fuel management log for all overwater missions.

6.24. NAVAID Capability:

6.24.1. Aircraft must meet North Atlantic Minimum Navigation Performance Specification (MNPS) Airspace and US West Coast to Hawaii Route System Procedures.

6.24.2. Minimum navigation performance specification standards (FLIP AP/2) are mandatory.

6.25. In-flight Meals. The aircraft commander and the pilot should not eat meals at the same time and their meals should consist of different menu items.

6.26. Communications:

6.26.1. General. Provide ARTCC with position and weather observations when required. Attempt relay through the global HF stations if unable to contact and ATC agency.

6.26.2. HF Communications. Confine message traffic to essential operational matters. Perform an HF radio ground check prior to takeoff when the use of HF radio may be required for ATC or C2 communications. Establish HF contact before going out of UHF or VHF range. Return to the nearest suitable support base if unable to establish HF contact with the controlling HF station and an alternate means of relaying ATC information in oceanic areas is not available (see ACCH 33-152, *ACC Aircrew Communications Handbook*, paragraph 6.2).

6.27. In-flight Emergency Procedures. Report deviations from directives that may occur as a result of an emergency in accordance with AFI 11-202V3, *General Flight Rules*, and this volume.

6.27.1. When safety permits, after completing the aircraft emergency action checklists and associated actions, crews should furnish the controlling agency and appropriate command and control agency with a description of the difficulty, assistance required, intentions, and any other pertinent information. As a minimum, include the items listed below.

6.27.1.1. Fuel onboard and hours of endurance

6.27.1.2. Position

6.27.1.3. Altitude and flight conditions

6.27.1.4. Number of personnel and DVs onboard

6.27.1.5. Qualification of aircraft commander (instructor, evaluator, etc.)

6.27.1.6. Planned landing base

6.27.1.7. ETA to landing base

6.27.2. The SOF (FOXTROT) will provide communications with unit Top-3 personnel for additional expertise if necessary to cope with emergencies. The instructor pilot on duty (RED BARON) will confirm landing data computations and provide phone patch capability to the aircraft manufacturer/contractors, if required.

6.28. Need for Medical Assistance. When a person aboard the aircraft requires medical care, inform the station of intended landing in sufficient time so the aircraft can be met by medical personnel. Include the sex, approximate age, and the major complaint in the request.

6.29. Weather Forecasts:

6.29.1. It is the aircraft commander's responsibility to obtain destination weather prior to descent.

6.29.1.1. Contact any US Air Force base weather station via PMSV or through a US Air Force aeronautical station.

6.29.1.2. The ATC system can provide weather information to en route aircraft.

6.29.1.3. The ARTCCs have a limited capability to provide weather information to en route aircraft within the CONUS.

6.29.2. SIGMET advisories will be transmitted from the servicing ATC unit. If a SIGMET differs from the previous forecast, contact a US Air Force weather agency for assistance.

Section 6F—Arrival

6.30. Descent. Appropriate terrain charts should be reviewed prior to descent, if applicable. Primary crewmembers will not be involved in duties other than aircraft operations, descent and approach monitoring, and required checklist items from the initial descent point to landing.

6.30.1. No flight crewmember may engage in, nor may any pilot in command permit, any activity from start of descent to landing which may distract any flight crewmember from the performance of their duties. This includes nonessential conversations and reading of publications not related to proper conduct of the flight which are not required for safe operation of the aircraft.

6.30.2. This restriction applies to all ground operations involving taxi, takeoff, and landing, and all other flight operations conducted below 10,000 feet, except cruise flight.

6.31. Classified Equipment and Material:

6.31.1. When classified equipment is onboard, ensure the appropriate command and control agency or base operations office is aware of the requirement for aircraft security according to **Chapter 7** of this volume. At bases not under jurisdiction of the Air Force, ensure the aircraft and equipment are protected. AFI 31-401, *The Air Force Information Security Program*, provides specific guidance concerning the security of various levels of classified equipment aboard aircraft.

6.31.2. Ensure COMSEC and other classified materials are turned in at destination and receipts are obtained for COMSEC and classified material. Combat crew communications or appropriate command and control agency will provide temporary storage for COMSEC and other classified materials during en route, turnaround, and crew rest stops.

6.31.3. Aircrews will conduct an operational ground test of the mode 4 on the following missions (ground test assets permitting): (N/A OC-135).

6.31.3.1. All missions penetrating an ADIZ.

6.31.3.2. Operational missions

6.31.3.3. Training missions requiring positive electronic identification

6.31.3.4. ATO missions where safe passage procedures are implemented

6.31.4. Attempt to fix an inoperable mode 4 prior to takeoff. Do not delay takeoff nor cancel a mission for an inoperable mode 4, except when the aircraft will transit an area where safe passage procedures are implemented.

6.31.5. Aircraft with inoperable mode 4 will continue to its intended destinations. Repairs will be accomplished at the first destination where equipment, parts, and maintenance technicians are available. In theaters where safe passage is implemented, aircraft will follow procedures for inoperable mode 4 as directed in the applicable airspace control order or ATO.

6.31.6. Ground and in-flight checks of the mode 4 are mandatory maintenance debrief items. Crews will annotate unsuccessful interrogation of the mode 4 in aircraft forms (AFTO Form 781A).

6.31.7. Aircrews will carry COMSEC equipment and documents required to operate the mode 4 on applicable missions. Prior to departing for any destination without COMSEC storage facilities, crews will contact their local COMSEC managers for guidance. (N/A OC-135)

6.32. Unscheduled Landings. When an unscheduled landing or crew rest occurs at a base without a passenger facility, the aircraft commander should immediately advise the appropriate C3 and request assistance in arranging substitute airlift for passengers that are aboard. Where necessary, request assistance from the local base commander for transportation, billeting, and meals to accommodate the passengers.

6.33. Maintenance. After landing, crewmembers debrief maintenance personnel on the condition of the aircraft, engines, avionics equipment, and all installed special equipment as required. At stations where there is no maintenance and maintenance support is required, the aircraft commander ensures a thorough maintenance debrief is provided to the controlling C3 agency.

6.34. Border Clearance. Procedures for Customs and Border clearance can be found in the following publications. AFRD 24-4, *Customs and Border Clearance*; AFI 24-401 through 405, *Customs and Border Clearances*; DoD 5030.49-R, *Customs Inspection*; and DoD 4500.54-G, *Foreign Clearance Guide*.

6.34.1. Normal Operations:

6.34.1.1. The unit dispatching the mission is normally responsible for the border clearance of all aircraft.

6.34.1.2. When staff support is not available, border clearance is the responsibility of the aircraft commander. Duties may be assigned to ground personnel or an aircraft commander delegated representative, but the aircraft commander retains ultimate responsibility. When an RC/OC/TC/WC-135 aircraft is unloaded at a base without an air traffic function, the aircraft commander is responsible for ensuring the following:

6.34.1.2.1. The aircraft commander's delegated representative will distribute personal customs declarations (when not accomplished by passenger services) to all passengers, troops, and crewmembers. The delegated representative will also brief passengers and crewmembers on customs regulations, and prepare and compile necessary border clearance forms for the aircraft commander's signature en route.

6.34.1.2.2. Notify the appropriate command and control agency at the base of intended landing of any change in ETA to ensure that border clearance is accomplished as soon as possible after landing en route.

6.35. Insect and Pest Control:

6.35.1. Responsibility. Aircraft commanders will ensure required spraying is accomplished according to AFJI 48-104, *Quarantine Regulations of the Armed Forces*; DOD 4500.54-G, *DOD Foreign*

Clearance Guide (FCG); or as directed by higher headquarters. Certify the spraying on Customs Form 7507 or on forms provided by the country transited.

6.35.2. Responsibility of Aircraft Commander In-flight. When seeing any insect or rodent infestation of the aircraft in-flight, notify the destination command and control agency, base operations, or airport manager of the situation before landing so the proper authorities can meet the aircraft.

6.35.3. Procedure at Aerial Port of Disembarkation (APOD). On arrival at an APOD, do not open cargo doors or hatches except to enplane officials required to inspect the aircraft for insect or rodent infestation or to deplane the minimum number of crewmembers required for block-in duties. Do not on or offload cargo or passengers until the inspection is satisfactorily completed. This procedure may be altered to satisfy mission or local requirements, as arranged by the base air terminal manager or the local command and control organization.

6.36. Arresting Cables: (Does not include recessed cables.)

6.36.1. RC-135V/W and OC-135B aircraft will not takeoff or land on a runway with raised arresting gear. RC-135V/W and OC-135B aircraft may begin takeoff roll immediately past the approach end arresting gear provided the following criteria are met:

6.36.1.1. The departure end arresting gear/barrier cable is removed.

6.36.1.2. Takeoff data is recomputed using actual runway remaining.

6.36.1.3. Critical field length (CFL) does not exceed 90 percent of the remaining runway length. If CFL exceeds 90 percent of the remaining runway length, the entire runway will be used and the approach end arresting gear/barrier cable will be removed.

6.36.1.4. RC-135V/W and OC-135B aircraft will ensure all barriers and cables are removed prior to recovery.

Chapter 7

RC/OC/WC/TC--AIRCRAFT SECURITY

7.1. General. This chapter provides guidance on aircraft security and preventing and resisting aircraft piracy (hijacking) of RC/OC/WC/TC-135 aircraft. AFI 13-207, *Preventing and Resisting Aircraft Piracy (Hijacking)*; AFI 31-101V1, *Air Force Physical Security Program*; and specific MAJCOM security publications contain additional guidance. Aircrews will not release information concerning hijacking attempts or identify armed aircrew members or missions to the public.

7.2. Security. The RC-135 is designated a security priority "B" (or equivalent) resource when on alert as the result of EWO/SIOP tasking, when deployed OCONUS, or when SCI configured. It is a priority "C" (or equivalent) resource at all other times in CONUS. Aircraft security at non-US military installations is the responsibility of the controlling agency. At contractor facilities, the RC-135 must receive the same level of security required for priority "B" (or equivalent) resources under AF control (reference AFI 31-101V1, *Air Force Physical Security Program*).

7.3. Air Force Physical Security Program. The following security procedures will implement AFI 31-101V1, *The Air Force Physical Security Program*, requirements for RC-135 aircraft:

7.3.1. When designated priority "C" (or equivalent), the aircraft is parked in an established restricted area and afforded protection via a two-person Armed Response Team (ART) and a two-person armed response capability, normally a Security Response Team (SRT), within 5 minutes.

7.3.2. When designated priority "C" (or equivalent) and no permanent or established restricted area parking space is available, establish a temporary restricted area consisting of a raised-rope barrier, and post with restricted area signs. Provide a one-person mobile patrol, supported by a two-person security response team capable of 5-minute response. Portable security lighting will be provided during the hours of darkness if sufficient permanent lighting is not available.

7.3.3. At non-US military installations, the aircraft commander determines the adequacy of local security capabilities to provide aircraft security commensurate with this volume. If he or she determines security to be inadequate, the aircraft will depart to a station where adequate security is available.

7.3.4. The security force must be made aware of all visits to the aircraft.

7.3.5. Security support is a continual requirement and is not negated by the presence of aircrew or ground crewmembers. Security force support terminates only after the aircraft doors are closed and the aircraft taxis.

7.3.6. When designated priority "B" (or equivalent), the RC-135 may be parked inside a permanent restricted area containing priority "A" or "B" (or equivalent) resources with no additional patrol or post required. If parked within an area containing only priority "C" (or equivalent) resources or if parked outside a permanent "B" (or equivalent) restricted area, an individual resource protection sensor (IRPS) must be installed with the alarm termination at an existing post or patrol. If no IRPS is available, the security force must be able to ensure positive control, boundary surveillance over the restricted area or aircraft, a one-person roving patrol and a two-person external armed response capability, normally a Security Response Team (SRT), within 5 minutes.

7.4. Enroute Security. The planning agency must coordinate with the execution agency to ensure adequate en route security is available. Aircraft commanders will receive a threat assessment and an enroute security capability evaluation briefing for areas of intended operation prior to home station departure and should request updates from enroute C3 agencies as required. If required, a mission security team (MST) will be assigned to the mission.

7.4.1. The MST normally consists of three US Air Force security forces personnel, but may include more depending on security requirements. The team travels in MEGP status and is responsible to the aircraft commander at all times. Aircraft commanders are responsible for the team's welfare (transportation, lodging, etc.). The aircraft commander will ensure MST members receive a full aircrew briefing.

7.4.2. The aircraft commander will assess the local situation and take the following actions as required:

7.4.2.1. Request area security post or patrols from local security forces commensurate with appropriate security designation priority. If local authorities request payment for this service, use AF Form 15, **USAF Invoice**.

7.4.2.2. During short ground times, direct crewmembers to remain with the aircraft and maintain surveillance of aircraft entrances and activities in the aircraft vicinity.

7.4.2.3. If local security forces are unavailable or are unacceptable to the aircraft commander and the crew has not been augmented with a MST, the aircraft commander may waive the flight duty period limits and crew rest requirements and depart as soon as possible for a base considered reliable. Report movement and intentions to the controlling agency as soon as practical. If departure is not possible, the aircrew must secure the aircraft to the best of their ability. In no case, will the entire crew leave the aircraft unattended. Crew rest requirements will be subordinate to aircraft security when the airframe may be at risk. The aircraft commander should rotate a security detail among the crew to provide for both aircraft protection and crew rest until relief is available. Request security assistance from the nearest DOD installation, US Embassy, local military, or law enforcement agencies as appropriate.

7.4.3. Unescorted entry is granted to aircrew members and support personnel assigned to the mission who possess their home station AF Form 1199, **USAF Restricted Area Badge**, supported by an EAL or aircrew orders. Aircrew members and assigned crew chiefs are authorized escort authority.

7.4.3.1. Normally, non-US nationals, such as cargo handlers, can perform their duties under escort and should not be placed on the EAL.

7.4.3.2. Personnel not qualified in paragraph 7.4.3. must be escorted within the area..

7.4.4. When parking on a secure en route ramp, the aircraft will normally be left unlocked to allow ground support personnel immediate access. If the aircraft commander determines that security is necessary (professional gear or personal items left on the aircraft), the crew will use only breakable seals (i.e. forestry service "boxcar" seals, safety wire, etc.).

7.4.4.1. If ground personnel need to access a sealed aircraft, they will request permission from local command and control agency, which will log the breach in their logbook and notify the crew at alert time. Ground personnel will reseal the aircraft using similar means.

7.4.4.2. Aircrews will comply with paragraph 7.5.5. Additionally, if unauthorized entry is suspected or an unauthorized seal breakage occurs report via the appropriate Air Force-approved form for an aircraft commander's report on services or facilities.

7.4.5. When parking on a non-ACC en route ramp where the aircraft commander determines that security may be a problem, the aircraft will be sealed or locked using procedures in paragraph 7.5. If further security is required, other measures (SF teams, local security, etc.) will be located.

7.5. Detecting Unauthorized Entry. If, in the aircraft commander's judgment, the aircraft needs to be locked and sealed in order to detect unauthorized entry, then:

7.5.1. Use available aircraft ground security locking devices.

7.5.2. Secure the hatches and doors in a manner that will indicate unauthorized entry (e.g., tape inside of doors and hatches to airframe so that entry pulls tape loose).

7.5.3. Close and lock the main crew entrance door.

7.5.4. Wipe the immediate area around lock and latches clean to aid in investigation of a forced entry.

7.5.5. Report any unauthorized entry or tampering to the Office of Special Investigation (OSI), security forces or local authorities, and the C3 agency. Have aircraft thoroughly inspected prior to flight.

Chapter 8

OPERATIONAL REPORTS AND FORMS

8.1. AF Form 457, USAF Hazard Report. See AFI 91-202, *The US Air Force Mishap Prevention Program*. The Air Force hazard reporting system provides a means for Air Force personnel to alert supervisors and commanders to hazardous conditions requiring prompt corrective action.

8.2. AF Form 651, Hazardous Air Traffic Report (HATR) . See AFI 91-202, *The US Air Force Mishap Prevention Program*. The Air Force HATR program provides a means for personnel to report all near midair collisions and alleged hazardous air traffic conditions.

8.3. Reports of Violations. Violations identified in AFI 11-202V3, *General Flight Rules*, alleged navigation errors including overwater position errors exceeding 24 nms, border and air traffic control violations will be reported (not applicable to ARCs).

8.3.1. Use the following format and include:

8.3.1.1. Factual circumstances

8.3.1.2. Investigation and analysis

8.3.1.3. Findings and conclusions

8.3.1.4. Recommendations

8.3.1.5. Actions taken

8.3.1.6. Attachments to include:

8.3.1.6.1. Notification of incident

8.3.1.6.2. Crew orders

8.3.1.6.3. Statement of crewmembers (if applicable)

8.3.1.6.4. Documenting evidence (logs, charts, etc.)

8.3.2. In addition to the information listed, the historical flight plan will be downloaded onto a floppy disk and turned in to the command and control facility or owning standardization and evaluation office.

8.3.3. Send the original investigation report within 45 days to the appropriate MAJCOM.

8.3.4. The following OPREP-3 reporting procedures for all aircraft notified of navigational errors exceeding 24 nms will be reported under AFMAN 10-206, *Operational Reporting*.

8.3.4.1. The aircraft commander (or agency receiving notification) documents the circumstances surrounding the incident (report content below) and submits an OPREP-3 report through C3 agency channels on notification of a navigational position error. If notification is received while airborne, this report should be submitted at the first point of landing by contacting the nearest C3 agency or requesting submission through the local host command post. Address record reports to the appropriate MAJCOM, USAF Washington DC/XOORF, and intermediate command levels.

8.3.4.2. Report Content:

- 8.3.4.2.1. Name and location of unit submitting report
- 8.3.4.2.2. Mission identification number
- 8.3.4.2.3. Reference to related OPREP-3s
- 8.3.4.2.4. Type of event. (State: "Navigation position error")
- 8.3.4.2.5. Date, time (Zulu), and location (i.e. ARTCC area)
- 8.3.4.2.6. Description of facts and circumstances. Include aircraft type and tail number, unit (wing or squadron assignment of crew), home base, route of flight, point of alleged deviation, and miles off course.

8.4. Petroleum, Oil, and Lubricants (POL)--Aviation Fuels Documentation. This section describes procedures for the aviation fuel program (AVPOL) for all US Air Force aircraft. Procedures are established for correct documentation and processing of forms and invoices, program oversight and personnel responsibilities. Reference AFI 23-202, *Buying Petroleum Product, and Other Supplies and Services Off Station*, MAJCOM specific decentralization procedures, and AFMAN 23-110V1PT3, *Air Force Stock Fund and DPSC Assigned Item Procedures*.

8.4.1. All aircrew and maintenance personnel will be familiar with the procedures and documentation requirements of this chapter. Purchase of aviation fuel not complying with this volume may become the financial responsibility of the purchaser.

8.4.2. Aircraft will be refueled and defueled at DOD locations unless DOD-owned fuel is not available, in which case fuel may be procured from other sources using the following priority.

8.4.2.1. Defense Fuel Supply Center (DFSC) or Canadian INTO-PLANE contracts.

8.4.2.2. Foreign government air forces.

8.4.2.3. Open market purchase to include Shell International Trading Company (SITCO) agreement.

NOTE: The DOD FLIP en route supplements identify locations with INTO-PLANE contracts.

8.4.3. AVPOL Documentation Use and Procedures:

8.4.3.1. AF Form 664, Aircraft Fuels Documentation Log. Used to log and store all AVPOL transaction documentation. Log all off station transactions on front of AF Form 664 then insert the supporting documentation inside the envelope. Turn in AF Form 664 with supporting documentation at maintenance debriefing. Completion of the AF Form 664 is not required for local training missions.

NOTE: When logging in-flight onload transactions on the AF Form 664, place the 8-digit serial number of the tanker in the block titled "Airfield Name" and the unit number and home station in the block titled "Airfield Address."

8.4.3.2. AF Form 315, United States Air Force Avfuels Invoice. Use to purchase aviation fuel at non-DOD activities. (Reference AFI 23-202, *Buying Petroleum Products, and Other Supplies and Services Off-Station*.) When completed, log and place inside the AF Form 664.

8.4.3.3. AF Form 15, United States Air Force Invoice. Use to purchase ground fuels, oils, or services at non-DOD activities. When completed, log and place inside AF Form 664.

8.4.3.3.1. Always retain the original copy of the AF Forms 15 and 315. Give the vendor a legible copy. Keep an invoice for the purchase and attach it to the form used. Attach a copy of the flight orders to the form so finance will know the appropriate fund cite to use for billing.

8.4.3.3.2. Purchases at Canadian INTO-PLANE locations will be documented using the local vendor's invoice. AF Form 15 or 315 will not be accomplished. Hand scribe the information from the aircraft identaplate onto the vendors invoice, and complete a separate sheet with the information listed on the Aviation Issues to DOD and Non-DOD Aircraft Refueling Tender Sheet. Log and place a copy inside the AF Form 664. (Reference AFI 23-202, *Buying Petroleum Products, and other Supplies and Services Off-Station.*)

8.4.3.3.3. Purchases at SITCO Agreement locations require presenting the aircraft identaplate. The invoice must include the date of transaction, grade of the product, quantity issued or defueled, unit of measure, and signature of the Air Force representative. If the vendor requires completion of an AF Form 15 or 315 in addition to their invoice, annotate on the invoice "AF FORMS EXECUTED." Log and place the documentation inside the AF Form 664.

8.4.3.3.4. Purchases at noncontract commercial airfields are accomplished using the AF Form 15 or 315. Refer to AFI 23-202, *Buying Petroleum Products, and other Supplies and Services Off-Station*, for guidelines on completing these forms.

8.4.3.3.5. Purchases at foreign military airfields, including replacement-in-kind (RIK) locations, the host country forms are used to record the purchase. Information from the aircraft identaplate should be hand scribed on the local form. Log and place a copy inside the AF Form 664.

8.4.4. AF Form 791, Aerial Tanker In-flight Issue Log. Use for all in-flight onload/offload transactions. All blocks are required to be filled out with the exception of the gallons. Serial numbers for the tanker and receivers must be the 8-digit number. Turn in after flight according to locally established procedures.

8.4.5. AF Form 1994, Fuel Issue/Defuel Document. Used for purchases at all US Air Force locations using a valid DD Form 1896, Jet Fuel Identaplate. Log and place inside AF Form 664.

8.4.6. AFTO Form 781H, Aerospace Vehicle Flight Report and Maintenance Document. Complete form per applicable technical directives. When removed from jacket, turn in to maintenance. Maintenance will retain for 90 days after interfund billing to provide a secondary audit trail for fuels issue and flying hours.

8.4.7. DD Form 1896, Jet Fuel Identaplate. Aircraft fuel and oil charge card.

8.4.8. DD Form 1898, Av fuels INTO-PLANE Sales Slip. Fuel transaction receipt. Used for purchases at other DOD locations, including DFSC INTO-PLANE contract locations. Log and place inside AF Form 664.

NOTE: If the contractor insists on completing their own invoice in addition to the DD Form 1898, the invoice must be annotated "DUPLICATE DD FORM 1898 ACCOMPLISHED."

8.4.9. Aircraft commanders will:

8.4.9.1. For local training missions:

8.4.9.1.1. Verify AF Forms 791 and AFTO Form 781H, are completely filled out prior to maintenance debriefing.

8.4.9.1.2. Turn in AFTO Form 781H to maintenance debriefing. Turn in AF Form 791 IAW local procedures.

8.4.9.2. For off station missions:

8.4.9.2.1. Verify AF Forms 15, 315, 664, 791, 1994, AFTO Form 781H, DD Form 1898, and all associated fuels receipts are completely filled out and placed inside the AF Form 664.

NOTE: All US Air Force aircraft must contain an 8-digit serial number.

8.4.9.2.2. Ensure AF Form 664, with all refueling documentation, and the AFTO Form 781H are turned in at maintenance debriefing.

8.4.9.2.3. Ensure all AF Forms 664 and 791 information is phoned, faxed, or sent by message back to the home station according to locally established procedures.

NOTE: When situations arise that preclude the transmission of AF Form 664 data, the information will be relayed upon arrival from the first available ACC command post.

8.4.10. Maintenance personnel will:

8.4.10.1. Ensure all refueling documentation is completed according to locally established procedures.

8.4.10.2. Complete all ground refueling/defueling documents and place inside AF Form 664 when off station.

8.4.10.3. Have an adequate supply of fuels transaction documents on the aircraft to complete the deployment.

Chapter 9

RC/OC/WC/TC-135 OPERATIONS-NAVIGATION PROCEDURES

9.1. General:

9.1.1. The guidelines in this chapter contain the minimum requirements for the reconnaissance navigator. Additional navigational information may be calculated and used based on sound judgment and navigation equipment performance. The primary means of navigation is dead reckoning (DR). DR positions may be computed using any of the following methods: manually computed DR, automatic DR positions computed by onboard navigation systems (inertial, Doppler or GPS), or mentally calculated DR. Radar fixing is considered the most accurate means to determine the aircraft's position and update DR positions. Radar should be used as the primary cross-check for system accuracy. If radar targets are not available, radio aid fixing and celestial (where applicable) should be used to update the DR position.

NOTE: For the purposes of this chapter, the term "system" is defined as any electronic navigation equipment (i.e., INS, GSID, SID, GPS, LN-20, etc.).

9.2. Mission Planning:

9.2.1. Complete a mission flight plan according to appropriate flight manual information anytime a scheduled mission departs the local traffic pattern area. The crew or appropriate staff planning agency will prepare a computer or manually produced flight plan. If prepared by the staff, the aircrew is responsible to verify the accuracy of the plan. Attempt to contact the tanker aircrew before departure, if circumstances permit, to ensure air refueling (AR) information accuracy.

9.2.2. GNC charts may be used for oceanic navigation. RC-135s will use JNC charts in the Operational Area (OA). To conserve resources, individual charts may be reused or copies may be produced from a locally prepared master chart bank. The navigator will ensure the master chart bank is accurate.

9.2.3. Navigators should develop proficiency using computer flight planning (CFP) programs. Squadrons should ensure navigators maintain manual flight planning skills to accommodate in-flight mission replanning and the overall enhanced flexibility in a contingency environment. Maintain MAJCOM approved electronic calculator and personal computer based systems with up-to-date software information (see para 6.11.).

9.2.4. Establish the navigation leg route, if required, during mission planning. Plan navigation leg and orbits using fuel efficient altitudes and airspeeds. Flight safety and operational requirements will take priority when determining altitudes and airspeeds.

9.2.4.1. Best range is designed for aircraft going point to point requiring the least amount of time and fuel. (i.e. en route from Offutt to Nellis).

9.2.4.2. Best endurance is used for flying when a period of time and destination is not a consideration (i.e., celestial navigation legs, orbit procedures).

9.2.5. Annotate restricted, warning, or prohibited airspace on the chart if the special-use airspace is in the planned altitude structure and within 50NM of the intended route-of-flight. Crews should be aware of special-use airspace along the entire route of flight. Comply with special-use airspace

requirements in the flight information publication (FLIP). Annotate charts with high terrain and emergency airfields.

9.2.6. All flights conducted off airways that penetrate an air defense identification zone (ADIZ) inbound will include the ADIZ penetration point on the flight plan.

9.2.7. Squadrons will retain logs, charts (copy, if reused), and associated materials IAW AFMAN 37-139, *Records and Disposition Schedule*.

9.3. Navigation Procedures:

9.3.1. Log and Fixing Requirements. The navigator is responsible for positional awareness at all times. General navigation begins at level off and ends when the pilot or air traffic controller assumes navigation to the terminal facility. Complete a level-off position as a separate line entry on the appropriate log. Monitor the aircraft's position at all times using appropriate navigation aids.

9.3.1.1. Record a fix/MPP at intervals not exceeding 30 minutes and at all heading changes greater than 20 degrees. The navigator will plot a position, record an ETA for the next major waypoint (e.g. OA entry) and manually compute and record the outbound track of the aircraft using the following information: magnetic heading, chart variation, true airspeed, Doppler drift and ground-speed. Compare the manually computed information against the INS track. The navigator will resolve differences greater than 5 degrees before the next major waypoint (time permitting).

9.3.1.2. The radar will be used to cross-check the INS when available. After all turns, the navigator will ensure the aircraft is tracking to the next desired waypoint using outbound information.

9.3.1.3. Fixing requirements are not applicable during a departure, holding, weather avoidance, Airway/Jet Route Navigation, OC-135 sensor legs, WC-135 intercept operations, and upon initiation of penetration and approach. Fixing requirements may be suspended during air refueling from the point 30 minutes prior to the ARCT/RZIP through final disconnect or the air refueling exit point, whichever is later. The receiver will monitor aircraft position and will notify the tanker if the flight path will exceed airspace boundaries. The position of the aircraft must be monitored at all times using appropriate aids.

9.3.1.4. The navigator should compute an alter heading for all planned turn points. An alter heading may be derived from a flight plan or manually computed. If the difference between the roll-out heading and the planned alter heading is greater than 5 degrees, the navigator will resolve the difference prior to the next waypoint.

9.3.1.5. In-flight log requirements should not interfere with the navigator's primary task of directing the aircraft to mission accomplishment. Log entries and fixing requirements may be delayed, postponed, or altered due to operational requirements or restrictions, air refueling, weather deviations requiring immediate action, or EMCON limitations. Limit log entries when aircraft receives or requires minor heading changes, ATC vectors, etc. During periods when log entries are delayed, postponed, or altered, make every effort to cross-check navigation systems.

9.3.1.6. Resolve radar and radio navigational aid fix/MPPs within 5 nms accuracy.

9.3.1.7. Celestial/pressure procedures are not required overland. Celestial/pressure procedures are not required overwater if two independent (separate) navigational sources (e.g. LN-20/Hand-held GPS) are available.

9.3.1.8. If a calculator or computer is used for NAVAID distance and bearing information (including conversion to geographical coordinates), record the NAVAID identification, time, radial, distance and magnetic variation.

9.3.2. Overwater Navigation. (N/A OC/WC-135). Overwater navigation procedures will be used when radar targets are not available. The navigator will record a fix/MPP at intervals not exceeding 30 minutes by carrying a manual DR backed-up by celestial or pressure line(s) of position. A celestial heading check will be accomplished once per hour. The navigator will plot the "system" position to evaluate the manual DR at celestial fix/MPP time. Celestial/pressure procedures are not required if two independent navigational sources (e.g., LN-20/Hand-held GPS) are available.

9.3.3. Repetitive Orbit Procedures. The navigator should calculate rollout information and precanned fixes for turn points and rollout positions for a minimum of two complete orbits. After two orbits, the navigator may use 30 minute pacing (as outlined in [9.3.1.1](#)). EXCEPTION: a position is not required at each planned turn point. The navigator will ensure the aircraft is tracking to the next desired way-point after all turns.

9.3.4. System Accuracy. Verify system accuracy (with radar when available) at intervals not to exceed 30 minutes and at all turns greater than 20 degrees. Cross-check the system ground speed and drift against the Doppler. Track and true heading indications should be correct; latitude and longitude coordinate display should be changing appropriately prior to coupling the INS to the autopilot. Inform the crew if the inertial position differs by more than 2 nautical miles from the actual aircraft position.

9.3.5. Degraded System Operation. When the INS has been deemed unreliable or shut down, the navigator will plot and carry a manual DR (N/A OC-135).

9.3.6. Safety Check. Complete a cockpit safety check before takeoff and landing. Notify the aircraft commander if a deviation is observed. Include the following items in the cross-check:

9.3.6.1. Verify flaps are set as briefed

9.3.6.2. Appropriate clearance is obtained

9.3.6.3. Weather is satisfactory

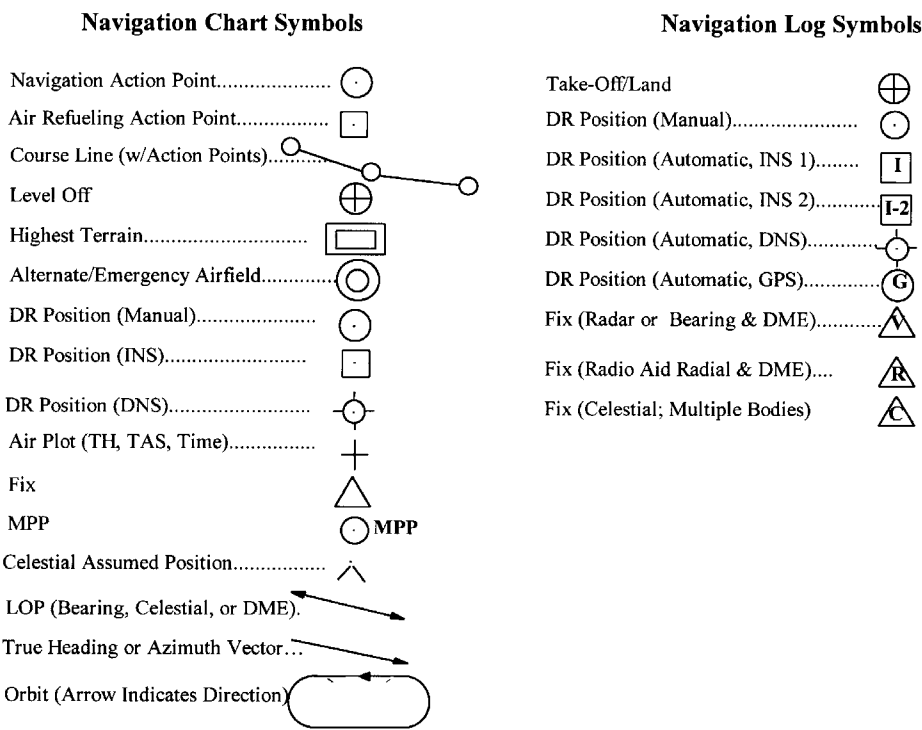
9.3.6.4. Speedbrakes are zero

9.3.6.5. Fuel valves/pumps are properly set

9.3.6.6. Confirm landing gear is down and locked before landing

9.3.7. Navigation Symbols. Use standard symbols in [Figure 9.1](#) and appropriate flight manual information for planning and recording in-flight navigation data.

Figure 9.1. Navigation Log and Chart Symbology.



9.4. Minimum Navigation Performance Specification (MNPS) Operations. Operations within the North Atlantic area’s MNPS airspace, Canadian minimum navigation performance specifications (CMNPS), or selected Pacific routes are designed for INS-autopilot coupled operation. (See FLIP AP/2, Chapter 5, and AFI 11-202V3, *General Flight Rules*, paragraph 8.17.) When not engaged in AR operations, aircrews will adhere to this procedure.

9.4.1. The RC/TC-135 ASN-121 Inertial and the OC/WC-135 Dual Inertial Navigation Systems with a qualified navigator meet MNPS accuracy requirements for operation in the North Atlantic Track (NAT) region. Navigator responsibility should focus on the successful operation, routinely monitoring, validation, and accurate update of the INS navigation system. Malfunctioning equipment that reduces the aircrew’s capability to comply with MNPS, whether occurring prior to or within MNPS airspace, will immediately be reported to the controlling agency and subsequent agencies throughout the route of flight. Aircraft losing INS may continue unless directed by controlling agency (in order to permit necessary adjustment to separation standards).

9.4.2. When flying in MNPS airspace, exercise special caution to ensure the coordinates of the assigned track and associated landfall and domestic routings are fully understood and correctly inserted into the automatic DR navigation system with appropriate cross-checks. If at any time the route (re-routing, if appropriate) is in doubt, check the details with ARTCC facility.

Paras 9.4.3. through 9.10.7. DELETED.

Table 9.1. DELETED.

Chapter 10

AIR REFUELING (AR)

10.1. AR Limitations:

10.1.1. AR should not be accomplished during training missions when:

10.1.1.1. Conditions are encountered that, in the opinion of either the aircraft commander or boom operator result in marginal control of either aircraft or the boom.

10.1.1.2. Either the tanker or the receiver has less than the full number of engines operating.

10.1.1.3. Tanker aircraft is unable to retract the landing gear.

10.2. Tanker Autopilot. Tanker pilots must notify receiver pilots when any axis of the autopilot is not used. If the tanker copilot is required to fly autopilot-off for training, the receiver copilot will not fly the aircraft. Tanker pilots must notify the receiver when copilot autopilot-off training is conducted and receive confirmation that the receiver copilot is not flying the aircraft.

10.3. AR without Tanker Disconnect Capability. Without tanker disconnect capability means the boom operator cannot trigger an immediate disconnect. Do not attempt further contacts with a tanker after a known loss of tanker disconnect capability.

EXCEPTIONS:

1. Fuel emergency situations.
2. SIOP, conventional, airborne alert, ORI/CORI, receiver over water deployment or redeployment, and operational reconnaissance missions.

10.4. Manual/Emergency Boom Latching. To complete training or evaluation in manual/emergency boom latching procedures, the following conditions must be met:

- 10.4.1. An AR instructor pilot (IP) must supervise the receiver activity on board receiver aircraft.
- 10.4.2. Contacts must be limited to the minimum required.
- 10.4.3. Receiver AR system must be fully operable.

NOTE: Receiver pilot and boom operator must coordinate all actions as required by applicable directives when making AR contacts during the situations listed above.

10.5. Prohibited Refueling Maneuvers. When operating in manual/emergency boom latching or when the tanker does not have disconnect capability, the following maneuvers are prohibited:

- 10.5.1. Practice emergency separation while in contact.
- 10.5.2. Demonstration of envelope limits.

10.6. Practice Emergency Separation:

10.6.1. Prior to the actual accomplishment of a practice emergency separation, coordination between the tanker pilot, boom operator, and receiver pilot is mandatory. Coordination must include when the separation will occur and who will give the command for separation.

10.6.2. If separation is initiated from the contact position, the receiver's AR system must be in NORMAL and a boom operator initiated disconnect capability with the receiver must have been demonstrated.

10.6.3. Practice emergency separations may be accomplished with passengers onboard; however all passengers must be seated with their seatbelts fastened.

10.7. Limits Demonstrations. The boom operator will initiate and ensure disconnect capability before demonstrating limits. Receiver limits demonstrations will only be flown under IP supervision.

10.8. Receiver Copilot AR:

10.8.1. Conducted under IP supervision or by a mission-ready aircraft commander designated in writing by the squadron commander.

10.8.2. The receiver pilot must inform and receive acknowledgment from the tanker pilot and boom operator (if EMCON allows).

10.9. Tanker Aircraft Commander Responsibilities:

10.9.1. Remaining within the protected lateral, longitudinal, and vertical airspace of the refueling track or anchor, including orbit patterns.

10.9.2. Notifying the appropriate ATC facility of all altitudes vacated and not anticipated for further use by refueling aircraft. Such altitudes shall not be reoccupied without further ATC clearance.

10.9.3. Receiver navigation from the ARIP after rendezvous voice contact through completion of refueling operations regardless of the number of tankers or receivers. EXCEPTION: When under control and responsibility of a military radar facility while in an anchor area.

10.9.4. Maintaining communications with the appropriate ATC facility. All communications during refueling operations, including those concerning the receivers, shall be between the ATC facility or military radar unit and tanker. The tanker shall advise receivers of receipt of clearance to conduct AR and assume position reporting responsibility for receivers after establishing voice contact with receivers.

10.9.5. Coordinating altitude and route clearance:

10.9.5.1. From the ATC facility for both the receiver and tanker at least 5 minutes prior to refueling completion, except when both aircraft are operating on an approved ALTRV.

10.9.5.2. Through the radar controller when operating in refueling anchors with military ground radar. At least 5 minutes prior to completing refueling operations, the military radar facility shall send requests to the assigned ATC facility and subsequently relay ATC clearances for tanker and receiver aircraft from the ATC facility.

10.9.5.3. Vertically positioning aircraft to the maximum extent practical prior to reaching the planning exit point. The vertical separation of receivers and tanker aircraft shall be accomplished within the assigned altitudes and designed to beneficially contribute to the safe and efficient transfer of separation responsibility from the military, under the provisions of MARSA, to the ATC facility on completion of refueling operations.

10.9.5.4. Providing each receiver on request with the aircraft's position at the completion of refueling operations. Additional information concerning amendments to the receiver's ATC clearance shall also be provided as appropriate.

10.10. Receiver Aircraft Commander Responsibilities:

10.10.1. Receiver aircraft shall squawk normal when separation from the tanker is greater than 3 miles.

10.10.2. Receiver aircraft will maintain two-way radio contact with ATC until cleared to the AR block altitude and established in that block.

10.10.3. Monitor position of AR formation ensuring compliance with ATC clearance or ALTRV.

10.10.4. Receivers shall establish communications with the tanker IAW T.O. 1-1C-1-14, *Flight Crew Air Refueling Procedure*, to the maximum extent practical.

10.11. ATC Clearance. The tanker commander shall receive specific ATC clearance from the appropriate ATC facility for the following:

10.11.1. Altitude blocks to conduct AR operation. Anchor area block altitude (except on an approved ALTRV).

10.11.2. Routings for each aircraft or formation flight if different than the flight plan routing.

10.11.3. Extending the refueling operations beyond the defined track and anchor exit point due to adverse winds, mission requirements, etc.

10.11.4. Additional altitudes in excess of those for which specific clearance has been granted (i.e. tobogganing).

10.12. Communications Failure. Aircraft experiencing two-way communications failure during the conduct of aerial refueling shall continue flight in accordance with the following procedures:

10.12.1. Squawk code 7600 for at least 2 minutes prior to exiting the track or anchor. After exit, continue squawk in accordance with "Procedures for Two-Way Radio Failure IFR-VFR" set forth in the *En route Flight Information Handbook*.

10.12.2. Tanker aircraft that have not received altitude instructions beyond the exit point shall exit the track or anchor at the highest altitude specified in the clearance for the refueling portion of the flight and proceed in accordance with "Procedures for Two-Way Radio Failure IFR-VFR" set forth in the *En route Flight Information Handbook*.

10.12.3. Receiver aircraft that have not received altitude instructions beyond the exit point shall exit the track or anchor at the lowest altitude specified in the clearance for the refueling portion of the flight and proceed in accordance with "Procedures for Two-Way Radio Failure IFR-VFR" as set forth in the *En route Flight Information Handbook*.

10.13. MARSA Applicability for AR. MARSA begins between tanker and receivers when the tanker advises ATC that it is accepting MARSA. MARSA is not a recognized ICAO term. If in doubt as to what separation is provided by ATC or what separation the aircrew is responsible for, query the controlling agency.

10.13.1. MARSA ends between tanker and receivers when the tanker advises ATC that tanker and receiver aircraft are vertically positioned within AR airspace and ATC advises MARSA is terminated.

10.13.2. Controller-assigned course or altitude changes prior to rendezvous completion will automatically void MARSA and are to be avoided after MARSA has been declared.

10.13.3. Headings and altitude assignments may be made with tanker concurrence with MARSA remaining in effect once the rendezvous is completed.

10.13.4. Each tanker shall keep receiver aircraft within 3 miles after rendezvous completion until MARSA is terminated.

10.13.5. Air refueling airspace, in CONUS, from the ARIP to the ARCP is sterilized after AR clearance is received and until rendezvous is completed. Other nonparticipating aircraft may be cleared through the AR block airspace with proper separation after the rendezvous is completed and the tankers and receivers proceed down track.

10.14. High Latitude Rendezvous and AR Procedures. Tanker and receiver aircraft will use the same heading reference at all times. Use the inertial system for the primary means of conducting the rendezvous. If GRID heading reference is used, coordination is required prior to launching the mission. In the event of an actual or suspected heading failure (either tanker or receiver), establish a common heading reference using EMCON 1 communication procedures.

Chapter 11

MISSION PLANNING

11.1. Scope. Guidelines in this section are designed to ensure effective planning and maximum safety for missions originating from home station. Duration of mission planning is directly proportional to the complexity of the mission. The OG/CC or equivalent may elect to use a mission plan-fly or a show-and-go profile to train crews. The amount of mission preparation done by the aircrew in each profile varies. In the mission plan-fly profile, aircrews complete all mission preparation. Mission planning is normally conducted the day prior to the mission. In the show-and-go profile, the staff or designated mission planning crew completes the mission preparation. Appropriate staff and aircrew members will comply with the provisions of this chapter.

11.2. Procedures:

11.2.1. The unit prepares a flying schedule for each training mission. This schedule is furnished to the crew before mission planning and should include takeoff time, fuel load, call sign, control times, air refueling tracks or anchor areas and altitudes, and pertinent applicable unclassified information on any special activity scheduled on the mission.

11.2.2. Unit mission planning facilities should possess essential mission planning materials.

11.2.3. A recommended briefing guide is provided by the unit standardization office. Briefing requirements found in the applicable flight manuals, air refueling manuals and Technical Orders must be briefed.

11.2.4. Unit staff should ensure flight crews are provided a minimum of 8 hours (6 hours for TC-135, mission plan and fly profile) to accomplish mission planning and mission briefing. This period may be reduced in proportion to the amount of staff and computer prepared mission data available to the crew; however, in no case should mission planning be reduced to less than 1.5 hours. Mission planning should be accomplished as a crew. Unit staff should ensure other activities do not interfere with mission planning and aircrew mission briefing.

11.2.4.1. A system should be established to ensure mission preparation is completed for the aircrew if the OG/CC elects to use a show-and-go profile. Responsibility for the accuracy of mission material is a function of time available to the aircrew. With limited time available (1.5 hours) to cross check mission material, then responsibility for the accuracy of mission material rests with the individuals preparing mission material and the aircraft commander. The aircrew has full responsibility for mission material with 4 hours of time to devote to mission preparation and review.

11.2.4.2. Training device periods may be accomplished within the time allotted for mission planning provided they are for the specific purpose of preparing for the mission being planned, they do not interfere with crew mission planning and briefing, and are accomplished and logged for the purpose of completing training requirements.

11.2.5. The aircraft commander ensures the crew has sufficient time for mission planning for unscheduled missions departing other than home station (e.g., recovery from weather diversion).

11.2.6. In cases where crews plan and brief to fly several missions from various bases in a short period of time, the following should apply:

11.2.6.1. The aircraft commander should ensure adequate mission planning time is allotted commensurate with the missions and routes flown.

11.2.6.2. Before each individual mission, crews should comply with paragraph 11.5..

11.3. Mission Preparation:

11.3.1. The following mission planning items should be reviewed by the crew:

11.3.1.1. Tactics, techniques, and procedures to be employed.

11.3.1.2. Crewmember training requirements and currency. Plan the flight to optimize requirements.

11.3.1.3. Aircrews and aircraft restrictions for each activity planned should be reviewed for compliance with command operating guidelines.

11.3.1.4. Flight plans, maps, and charts required for the mission and applicable forms not prepared by the unit staff should be accomplished by the crew.

11.3.1.5. Staff supervision of crew mission planning is recommended.

11.3.1.6. Crews should coordinate with maintenance to determine aircraft status.

11.3.2. The aircraft commander is ultimately responsible for the accuracy and completeness of all mission data. The aircraft commander ensures crew substitutions are made in sufficient time for the substitute crewmembers to be thoroughly briefed and be familiar with the applicable mission data before takeoff.

11.3.3. The supporting staff supplying prepared mission packages are responsible for providing complete and accurate data and all necessary material to complete mission planning.

11.3.4. The agency preparing mission packages should be available and brief the aircrew during mission planning to answer any questions. Annotate prepared mission package with the name of the staff member responsible for building the package.

11.4. Aircrew Mission Briefing:

11.4.1. The aircraft commander will conduct a mission briefing after each individual crewmember has completed their mission preparation. Each unit should develop briefing requirements for crewmembers absent. The briefing should cover all scheduled activities and the briefing items in the aircrew briefing guide.

11.4.2. Recommend squadrons develop a means to review mission paperwork for accuracy.

11.5. Pre-Takeoff Meeting. When the crew assembles on the day of the mission (not applicable for show-and-go profile), a pre-takeoff meeting of crewmembers should be conducted by individual aircraft commanders to review the weather, any changes to the mission, any unit specified briefing items, and to compute takeoff data.

11.5.1. Only the aircraft commander, pilots, and navigator are required to attend the weather briefing. The aircraft commander should brief the remaining crewmembers on the latest weather before takeoff.

11.5.2. The aircraft commander must re-brief the mission when the time interval from initial aircrew briefing to mission takeoff exceeds 72 hours.

11.6. Post-flight Debriefing and Critique:

11.6.1. Flight crews should attend the operations, intelligence, and maintenance debriefings as directed by unit commanders.

11.6.1.1. The aircraft commander will conduct a post-mission critique with the crew (as applicable or necessary) emphasizing CRM behavioral cues as well as training/mission accomplishment.

11.6.1.2. The aircraft commander should contact the intelligence branch representative when hostile or suspect activity is encountered during the mission.

11.6.1.3. Maintenance debriefing should be conducted as soon as possible after flight.

MARVIN R. ESMOND, Lt General, USAF
DCS, Air and Space Operations

Attachment 1**GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

AFMAN 10-206, *Operational Reporting*
AFI 10-403S1, *Deployment Planning*
AFM 11-1, *Glossary of Standardized Terms* (Paper copies available through PDO)
AFPD 11-2, *Aircraft Rules and Procedures*
AFPD 11-4, *Aviation Services*
AFJI 11-204, *Operational Procedures for Aircraft Carrying Hazardous Materials*
AFI 11-215, *Flight Manuals Program (FMP)*
AFI 11-218, *Aircraft Operation and Movement on the Ground*
AFI 11-202V3, *General Flight Rules*
AFI 11-401, *Flight Management*
ACCI 11-450, *Orientation Flight Program*
AFI 13-207, *Preventing and Resisting Aircraft Piracy (Hijacking)*
AFI 23-202, *Buying Petroleum Products, and Other Supplies and Services Off Station*
AFPD 24-4, *Customs and Border Clearance*
AFI 24-201, *Cargo Movement*
AFI 24-202, *Preservation and Packing*
AFJMAN 24-204, *Preparing Hazardous Materials for Military Air Shipments*
AFI 24-401, *Customs-Europe*
AFI 24-402, *Customs-Pacific*
AFI 24-403, *Customs-Southern*
AFI 24-404, *Customs-Domestic*
AFI 24-405, *Department of Defense Foreign Clearance Guide*
AFI 31-101V1, *The Air Force Physical Security Program*
AFI 31-401, *Managing the Information Security Program*
ACCH 33-152, *ACC Aircrew Communications Handbook (OPR: ACC AOS/AOCP)*
AFI 36-2903, *Dress and Personal Appearance of Air Force Personnel*
AFMAN 37-139, *Records Disposition Schedule*
AFJI 48-104, *Quarantine Regulations of the Armed Forces*
AFMAN 23-110V1PT3, *Air Force Stock Fund and DPSC Assigned Item Procedures*

AFI 91-202, *The US Air Force Mishap Prevention Program*
DOD Directive 7730.57, *Aviation Career Incentive Act of 1974 and Required Annual Report*
DOD 4515.13-R, *Air Transportation Eligibility*
DOD 5030.49-R, *Customs Inspection*
DOD 4500.54-G, *DOD Foreign Clearance Guide (FCG)*
DOD Flight Information Publication, *Area Planning Number 2 (AP/2)*
DOD Flight Information Publication, *En route Flight Information Handbook (FIH)*
DOD Flight Information Publication, *General Planning (GP)*
FAA Handbook 7610.4H, *Special Military Operations*
Joint Publication 1-02, *DOD Dictionary of Military and Associated Terms*
Public Law 92-204, *(Appropriations Act for 1973)*
Public Law 93-570, *(Appropriations Act for 1974)*
Public Law 93-294, *(Aviation Career Incentive Act of 1974)*
Title 37 U.S.C. 301, *Incentive Pay: Hazardous Duty*
Title 37 U.S.C. 301a, *Incentive Pay: Aviation Career*
T.O. 1-1C-1-14, *Flight Crew Air Refueling Procedures*
T.O. 1C-135-38, *Aircraft Structural Integrity Program*
Executive Order 9397
US STRATCOM Directive 512V1, 2, 3

Abbreviations and Acronyms

NOTE—See Joint Publication 1-02, *DOD Dictionary of Military and Associated Terms*; and AFM 11-1, *Air Force Glossary of Standardized Terms*, for complete listing.

AFCS—Automatic Flight Control System

ALTRV—Altitude Reservation

AR—Air Refueling

ARC—Air Reserve Components

C3—Command, Control and Communications

CCTS—Combat Crew Training School

CE—Circular Error

CFIC—Central Flight Instructor Course

CONOPS—Concept of Operations

DSN—Defense Switched Network

GPWS—Ground Proximity Warning System

LA—Low Altitude

OFT—Operational Flight Trainer

OA—Operational Area

OPLAN—Operation Plan

OPORD—Operations Order

OVRD—Override

PMSV—Pilot to Metro Service

RCR—Runway Condition Reading

SATCOM—Satellite Communications

SOCS—Strategic Operating Conference System

SOF—Supervisor of Flying

T.O.—Technical Order

Terms

Additional Crewmember (ACM)—Individual possessing valid aeronautical orders, who is not required to perform in-flight duties and is assigned in addition to or authorized to accompany the normal crew complement required for that mission according to [Chapter 3](#) of this volume. ACMs may not log flying time unless specifically authorized in this volume.

Administrative Control—Direction or exercise of authority over subordinate or other organizations in respect to administration and support, including organization of Service forces, control of resources and equipment, personnel management, unit logistics, individual and unit training, readiness, mobilization, demobilization, discipline, and other matters not included in the operational missions of the subordinate or other organizations. Also called **ADCON**.

Air Force Component Commander (AFCC)—In a unified, subunified, or joint task force command, the Air Force commander charged with the overall conduct of the Air Force air operations.

Airlift—Aircraft is considered to be performing airlift when manifested cargo is carried on the mission.

Augmented Crew—Basic aircrew supplemented by additional qualified aircrew members to permit in-flight rest periods.

Border Clearance—Clearances and inspections required to comply with federal, state, and local agricultural, customs, immigration, and immunization requirements.

Category I Route—Any route that does not meet the requirements of a category II route, including tactical navigation and over water routes.

Category II Route—Any route on which the position of the aircraft can be accurately determined by the overhead crossing of a radio aid (NDB, VOR, TACAN) at least once each hour with positive course guidance between such radio aids.

Combatant Command—A unified or specified command with a broad continuing mission under a

single commander established and so designated by the President, through the Secretary of Defense and with the advice and assistance of the Chairman of the Joint Chiefs of Staff. Combatant commands typically have geographic or functional responsibilities.

Combatant Command (command authority)—Nontransferable command authority established by title 10 ("Armed Forces"), United States Code, section 164, exercised only by commanders of unified or specified combatant commands unless otherwise directed by the President or the Secretary of Defense. Combatant command (command authority) cannot be delegated and is the authority of the combatant commander to perform those functions of command over assigned forces involving organizing and employing commands and forces, assigning tasks, designating objectives, and giving authoritative direction over all aspects of military operations, joint training, and logistics necessary to accomplish the missions assigned to the command. Combatant command (command authority) should be exercised through the commanders of subordinate organizations. Normally this authority is exercised through subordinate joint force commanders and service and/or functional component commanders. Combatant command (command authority) provides full authority to organize and employ commands and forces, as the combatant commander considers necessary to accomplish assigned missions. Operational control is inherent in combatant command (command authority). Also called **COCOM**.

Critical Phases of Flight—Takeoff, air refueling, approach to landing, landing, flight maneuvers that require direct instructor supervision, and designated formal training unit (FTU), CCTS or CFIC only maneuvers. Approaches to planned missed approaches and air refueling rendezvous are not considered critical phases of flight.

Dead Reckoning (DR)—A mathematical projection of the aircraft position derived from automatic or manually calculated averages in aircraft heading, true airspeed, wind direction, and wind speed effects over a specific time. There are two types of manual DR: ground plot--combined air path and wind vectors, and air plot--independent air path and wind vector.

Delay—Failure of an aircraft to depart due to maintenance or operational reasons at the scheduled departure time plus 30 minutes.

Distinguished Visitor (DV)—Passengers, including those of friendly nations, of star or flag rank or equivalent status, to include diplomats, cabinet members, members of Congress, and other individuals designated by the DOD due to their mission or position.

Execution—Command-level approval for initiation of a mission or portion thereof after due consideration of all pertinent factors. Execution authority is restricted to designated command authority.

Experienced Crewmember—Requirements listed in AFI 11-2RC-135V1, *Aircrew Training*. Individual must also be designated "experienced" by the squadron commander.

Fix—A position with a high accuracy potential. Order of precedence: GSID (FOM 7 or higher), SID, INS, Radar, TACAN, and Celestial.

Fuel Reserve—Amount of usable fuel carried beyond that required to complete the flight as planned.

Ground Time—Interval between arrival in the blocks and next takeoff time.

Hazardous Cargo or Materials—Articles or substances capable of posing significant risk to health, safety, or property when transported by air and classified as explosive (class 1), compressed gas (class 2), flammable liquid (class 3), flammable solid (class 4), oxidizer and organic peroxide (class 5), poison and infectious substances (class 6), radioactive material (class 7), corrosive material (class 8), or

miscellaneous dangerous goods (class 9). Classes may be subdivided into divisions to further identify hazard, i.e. 1.1, 2.3, 6.1, etc.

HHQ Missions—Missions executed at or above the NAF. HHQ missions include: deployment, redeployment, reconnaissance operations, Open Skies Joint Trial/Treaty Flights, ORIs, and PDM input/output. Exercise missions flown in support of HHD exercise, example GREEN FLAG, COPE THUNDER, FLEETEX, etc., are also considered HHQ missions as well as exercise support to classified users.

Initial Level-Off—The time (Greenwich Mean Time [GMT]) the aircraft completes a published departure (i.e. SID) or radar vector departure and reaches planned or final en route altitude.

Judgment—The art of relying upon experience, techniques, and procedural information to resolve conflicting navigational data.

Mission—Movement of aircraft from a designated point of origin to a designated destination as defined by assigned mission identifier, mission nickname, or both in the schedule, mission directive, OPORD or OPLAN.

Mission-Essential Ground Personnel (MEGP)—MEGP status is granted by the OG/CC to individuals on a case-by-case basis who perform unique support duties directly related and essential to a particular aircraft, aircrew, or mission.

Most Probable Position (MPP)—A position with the potential for improved accuracy. Navigation information capable of updating or verifying a DR position, normally in the form of LOP(s) applied to DR positions.

One Dimensional Aids to DR—One line of position (LOP), used to verify and update a DR position to an MPP. Includes: radar (bearing or distance), radio aid (radial or DME), celestial (single body), and pilotage (visual bearing or distance).

Operational Control—Transferable command authority that may be exercised by commanders at any echelon at or below the level of combatant command. Operational control is inherent in combatant command (command authority). Operational control may be delegated and is the authority to perform those functions of command over subordinate forces involving organizing and employing commands and forces, assigning tasks, designating objectives, and giving authoritative direction over all aspects of military operations and joint training necessary to accomplish missions assigned to the command. Operational control should be exercised through the commanders of subordinate organizations. Normally this authority is exercised through subordinate joint force commanders and service and/or functional component commanders. Operational control normally provides full authority to organize commands and forces and to employ those forces, as the commander in operational control considers necessary to accomplish assigned missions. Operational control does not, in and of itself, include authoritative direction for logistics or matters of administration, discipline, internal organization, or unit training. Also called **OPCON**.

Over-Water Flight—Any flight that exceeds power-off gliding distance from land.

Permit to Proceed—Aircraft not cleared at the first US port of entry may move to another US airport on "permit to proceed" issued by customs officials at the first port of entry. This permit lists the requirements to be met at the next point of landing, i.e. number of crew and passengers, cargo not yet cleared. Aircraft commanders are responsible to deliver the permit to proceed to the customs inspector at the base where final clearance is performed. (Heavy monetary fines can be imposed on the aircraft commander for not

complying with permit to proceed procedures.)

Position—Aircraft location at a specific time as determined by dead reckoning normally in the form of geographical coordinates.

Precanned Fix—A set bearing and distance from a known radar target or friendly NAVAID determined prior to position transition.

Repetitive Orbit—An orbit pattern flown between two end-points not exceeding 30 minutes.

Scheduled Takeoff Time—Takeoff time as established in the schedule or operations order (OPORD).

Significant Meteorological Information (SIGMET)—An area weather advisory issued by an ICAO meteorological office relayed to and broadcast by the applicable ATC agency. SIGMET advisories are issued for tornadoes, lines of thunderstorms, embedded thunderstorms, large hail, severe and extreme turbulence, severe icing, and widespread dust or sand storms. SIGMETs frequently cover a large geographical area and vertical thickness. They are prepared for general aviation and may not consider aircraft type or capability.

Tactical Control—Command authority over assigned or attached forces or commands, or military capability or forces made available for tasking, that is limited to the detailed and, usually, local direction and control of movements or maneuvers necessary to accomplish missions or tasks assigned. Tactical control is inherent in operational control. Tactical control may be delegated to, and exercised at any level at or below the level of combatant command. Also called **TACON**.

Training Mission—Mission executed at the unit level for the sole purpose of aircrew training for upgrade or proficiency. Does not include operational missions as defined in this volume.

Two Dimensional Aids to DR—Two or more LOPs, used to verify and update a DR position to an MPP-fix. Includes: radar (bearing and distance), radio aid (radial and DME), GPS present position coordinates (with altitude readout), radio aids (crossing radials), celestial (multiple bodies), and pilotage (visual bearing and distance).

Zero Fuel Weight—Weight, expressed in pounds, of a loaded aircraft not including wing and body tank fuel. All weight in excess of the maximum zero fuel weight will consist of usable fuel.

Attachment 2

IC 2000-1 TO AFI 11-2RC-135, VOLUME 3, RC/OC/WC/TC-135—OPERATIONS PROCEDURES

1 JUNE 2000

SUMMARY OF REVISIONS

This change incorporates interim change IC 2000-1 to AFI 11-2RC-135, VOLUME 3, RC/OC/WC/TC-135—OPERATIONS PROCEDURES. This IC deletes training requirements listed in **Chapter 4** and **Chapter 9**. These training requirements were updated and moved to AFI 11-2RC-135 Volume 1, *RC/OC/WC/TC-135--Aircrew Training*. IC 2000-1 eliminates the requirement for OC-135 crews to wear helmets during low-altitude (LA) flight operations. See the last attachment of the publication, IC 2000-1, for the complete IC. A (H) indicates revisions from the previous edition.

OPR: HQ ACC/XOFR

Title Page, 3rd paragraph. DELETE the following paragraph: “This volume contains references to the following field (subordinate level) publications and forms which, until converted to departmental level publications and forms, may be obtained from the respective MAJCOM publication office: **Forms:** MC Form 6, **Navigation Report**; MC Form 7, **Celestial Precomputation Form** (both available from ACC).”

Table 4.1. Maneuvers Authorized for Qualification and Continuation Training.

Maneuver	Pos.	WX	Restrictions
Touch-and-Go	IP/AC	Note 3,4,5	Note 2,6,8
App. And Landing, Sim Engine Out	IP/AC	Note 1,3	Note 2
App. And Go-Around, Sim. Engine Out (Rudder Power On) RCR N/A	IP/AC	Note 1	
App. Go-Around, Sim. Engine Out (Rudder Power Off) RCR N/A	IP/D	Note 1	
Sim. 3 Engine Touch 4 Engine Takeoff	IP/D	Note 1,3	Note 2,6
Sim. Engine Failure Takeoff Continued	IP/D	Note 1	Note 7
Sim. 2-Engine Landing (using 3 or 4 engine)	IP/D	Note 1,3	Note 2,6
Sim. Jammed Stabilizer	IP/D		
30 Flap Touch-and-Go	IP/D	Note 3,5	Note 2,6
Landing Attitude Demo	IP/D		Note 2
Air Refueling Limits	IP/D		
Spoiler/Lateral Control Demo	IP/S		
Trim Demo	IP/S		
H Simulated Engine Failure on the Runway	OFT		
No-Airspeed or AOA App. and Landing	FTU		
H Low Altitude Go-Around	FTU		

Maneuver	Pos.	WX	Restrictions
Combat Departure	OFT		
Runaway Stabilizer Trim	OFT		
Initial Buffet	OFT		
IP/D – Direct IP supervision is required. (IP at the controls)			
IP/S - IP supervision is required.			
Notes: 1. Instructor Pilots-day or night. 1000/2 miles or circling minimums for the approach being flown, whichever is higher, with an RCR of 9 or greater. Aircraft commanders-day only. 3000/3 miles with an RCR of 23. Aircraft Commanders may not supervise 3 engine maneuvers. 2. Use a runway of sufficient width and length to permit a safe, normal, full-stop landing. 3. Maximum crosswind component is 15 kts for IP supervised, 10 kts for aircraft commander. 4. Aircraft commander minimums are 1000/3, or published minimums whichever is higher. 5. IP minimums are 200/ ½ mile visibility, 2400 RVR, or published minimums, whichever is higher. 6. Do not accomplish Touch-and-Go landings on slush covered runways, with an RCR less than 9, or with less than 10,000 pounds of useable fuel. 7. Do not retard the throttle on an engine failure after takeoff prior to 200 feet AGL. 8. Aircraft commanders must be certified by squadron commanders to conduct or supervise copilot Touch-and-Gos.			

4.12.4.4. Reserve tanks will remain full during LA activity.

4.12.4.5. Operate the window heat on the high setting during LA to increase bird strike resistance.

4.12.4.6. Duration at LA is limited to three hours per basic crew per day and four hours if the crew is augmented.

4.12.4.7. The aircraft commander may terminate LA ops for fatigue or any other reason deemed appropriate.

4.12.4.8. Enter duration, airspeed, and any moderate or greater turbulence encountered during LA into the aircraft AFTO Forms 781.

4.12.4.9. Submit AFTO Form 76 after each flight IAW T.O. 1C-135-38, *Aircraft Structural Integrity Program*.

4.12.4.10. Report observed hazardous low altitude bird activity to planners during mission debriefing.

4.12.4.11. DELETED.

9.3.1.7. Celestial/pressure procedures are not required overland. Celestial/pressure procedures are not required overwater if two independent (separate) navigational sources (e.g. LN-20/Hand-held GPS) are available.

9.3.1.8. If a calculator or computer is used for NAVAID distance and bearing information (including conversion to geographical coordinates), record the NAVAID identification, time, radial, distance and magnetic variation.

9.4. Minimum Navigation Performance Specification (MNPS) Operations. Operations within the North Atlantic area's MNPS airspace, Canadian minimum navigation performance specifications (CMNPS), or selected Pacific routes are designed for INS-autopilot coupled operation. (See FLIP AP/2, [Chapter 5](#), and AFI 11-202V3, *General Flight Rules*, paragraph 8.17.) When not engaged in AR operations, aircrews will adhere to this procedure.

9.4.1. The RC/TC-135 ASN-121 Inertial and the OC/WC-135 Dual Inertial Navigation Systems with a qualified navigator meet MNPS accuracy requirements for operation in the North Atlantic Track (NAT) region. Navigator responsibility should focus on the successful operation, routinely monitoring, validation, and accurate update of the INS navigation system. Malfunctioning equipment that reduces the aircrew's capability to comply with MNPS, whether occurring prior to or within MNPS airspace, will immediately be reported to the controlling agency and subsequent agencies throughout the route of flight. Aircraft losing INS may continue unless directed by controlling agency (in order to permit necessary adjustment to separation standards).

9.4.2. When flying in MNPS airspace, exercise special caution to ensure the coordinates of the assigned track and associated landfall and domestic routings are fully understood and correctly inserted into the automatic DR navigation system with appropriate cross-checks. If at any time the route (re-routing, if appropriate) is in doubt, check the details with ARTCC facility.

9.4.3. DELETED.

9.4.3.1. DELETED.

9.4.3.2. DELETED.

9.4.4. DELETED.

9.4.5. DELETED.

9.4.6. DELETED.

9.4.6.1. DELETED.

9.4.6.2. DELETED.

9.5. DELETED.

9.5.1. DELETED.

9.5.2. DELETED.

9.5.3. DELETED.

9.6. through 9.10.7. DELETE.

Table 9.1. DELETE.